LABOUR AND INDUSTRIAL BRANCH

REPORT No. 2.

Trade Unionism, Unemployment, Wages, Prices, and Cost of Living in Australia, 1891-1912

Prepared under instructions from

THE HON. KING O'MALLEY, M.P.

Minister of State for Home Affairs.

BY

G. H. KNIBBS, C.M.G., F.S.S., F.R.A.S., etc.

Commonwealth Statistician.

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SYNOPSIS.

SECTION I.—INTRODUCTION.

1. General.—The main object of this Report is to present, in concise and convenient form, the results of certain investigations concerning the subjects of trade unionism, unemployment, and changes in rates of wages and hours of labour in the Commonwealth since the year 1891. These are the matters of most general interest and importance, now being investigated from year to year (beginning on the 1st January, 1913) by the Labour and Industrial Branch of this Bureau, and the inquiries in regard to these three matters were extended back to the year 1891, so as to furnish statistics which will be comparable with those which it is proposed to publish periodically in the future. The continuity of the returns, now being collected, will thus be substantially preserved.

In addition, it will be found that the Report furnishes particulars in a comparable form—firstly, as to current rates of wages and hours of labour in a number of the more important trades and occupations in the several States, and secondly, as to prices, price-indexes and cost of living up to the end of the year 1912.

The interests concerned in certain of these questions are varied and extensive, and associated with the latter are some important aspects of those economic and industrial problems which have, in comparatively recent years, become the subject of so much research and discussion on the part of statesmen, publicists and students, as well as of those who are engaged in the practical application of Conciliation and Arbitration, Industrial Disputes and Wages Board Acts.

Most, if not all, of the subjects dealt with in this Report have, in the past, not received in the Commonwealth that attention they now demand, and in view of the lack of data bearing thereon, it became necessary, before any comprehensive or reliable results could be obtained, to commence the collection of the data *de novo*.

2. Sources of Information.—Forms were accordingly distributed to the Secretary of every Trade Union in Australia, asking for certain information to be furnished. A specimen of the forms used for this purpose is shewn in Appendix I. hereof. It should be mentioned that four different forms were used, and, though substantially similar, they differed somewhat in detail, according as the information in regard to membership, unemployment, etc., to be supplied by the Secretary of the Union, related:—(a) to a whole State, including branches of the Union; (b) to a Head Office district only; (c) to an independent Union having no branches; or (d) to a branch only of a Union. The details of these forms are referred to hereinafter in dealing with the several branches of inquiry.

On return to the central Bureau, the particulars given on the forms were carefully examined and checked, where possible, by reference to awards and determinations of industrial tribunals, and to official reports and documents. In case of any discrepancy or apparent inconsistency, the forms were returned for verification and correction, generally through the Labour Agents and Correspondents of the Bureau.

It is gratifying to note that the response of the Union Secretaries was, on the whole, very satisfactory, and the thanks of the Bureau are due to many who went to a considerable amount of trouble and personal inconvenience in order to obtain from the books of their Associations and from other sources the desired information for past years as far back as 1891. At the outset, the progress of the work was somewhat hindered by the suspicions and apprehensions of officials of a few labour organisations, but this hindrance practically vanished, as soon as it was realised that the affairs of any single Union would not be disclosed in the published results, and that the investigations had no regard to the prejudices of any political designs, but were being made solely for general statistical purposes. In one or two cases demands for the information had to be issued under the penal provisions of the Census and Statistics Act 1905. It will be seen hereinafter that returns have been received from every trade union in the Commonwealth.

3. **Classification of Industries.**—For the purpose of tabulating and publishing the results of the investigations which have been made in regard to labour organisations, unemployment, rates of wages, etc., the following industrial classification of trades and occupations has been adopted:—

Classification of Industries and Occupations.

I.	Wood, Furniture, Sawmill, Timber-workers, &c.	VIII.	Mining, Quarries, &c.
II.	Engineering, Shipbuilding, Smelting, Metal Works, &c.	IX.	Railway and Tramway Services.
III.	Food, Drink, and Tobacco Manufacturing and Distribution.	X.	Other Land Transport.
IV.	Clothing, Hats, Boots, Textiles, Rope, Cordage, &c.	XI.	Shipping, Wharf Labour, &c.
V.	Books, Printing, Bookbinding, &c.	XII.	Pastoral, Agricultural, Rural, Horticultural, &c.
VI.	Other Manufacturing.	XIII.	Domestic, Hotels, &c.
VII.	Building.	XIV.	Miscellaneous.

SECTION II.—LABOUR ORGANISATIONS.

1. General.—Trade unionism and the organisation of labour are attracting a closer attention to-day than perhaps at any previous time, both in Australia and elsewhere. The information given in this section is intended to shew the general situation in regard to this movement in the Commonwealth at the present time, as well as its development since the year 1891. Returns were first collected from the Secretary of each trade union throughout Australia, shewing—among other things—the date and scheme or system of organisation; this was followed by the form already referred to and shewn in Appendix I.

It is ordinarily but little realised that the systems of organisation already evolved are varied and in some cases even elaborate, a fact not adequately appreciated even by many actually engaged in the work of labour organisation. The statistical information here given will therefore be of value, not only to the public generally, but even to those participating in, or directly affected by that work.

2. Confidential Nature of Individual Returns.—The cordial co-operation of the officials of labour organisations has greatly minimised the difficulties of collecting comprehensive figures relating to the development of organised labour, but even with this assistance the task of obtaining a complete enumeration of practically the whole of the unions in Australia has been a formidable one. Only very few of the smaller unions maintain business offices. The frequent change of officers; the failure to appreciate that it was compulsory (under the provisions of the Census and Statistics Act 1905) upon the Secretaries to answer the inquiries to the best of their knowledge, belief and information; the organisation and dissolving of unions and branches; misconceptions as to the object and value of the investigations of the Bureau, and the disinclination to furnish information of a confidential nature, the publication of which might (it was thought) be detrimental to the interests of trade unionism, have all contributed to delay the completion of the work. It is, consequently, more than ordinarily satisfactory to observe that it is now widely recognised by labour organisations that *statistics of individual organisations are absolutely confidential.*

3. Types of Trade Unions in Australia.—The types of trade unions in Australia are very diverse in character, and range from the small independent association to the large inter-State organisation, which, in its turn, may be merely a branch of a British or international union. Broadly speaking, there are four distinct classes of labour organisations, viz.:—(i.) the *local independent,* (ii.) the *State,* (iii.), the *inter-State,* and (iv.) the *Australasian or international,* but a number of variations occur from each of these classes.

(i.) *Local Independent Unions.*—The local independent trade union is composed of wage-earners working in a definite locality and employed

in the same trade or occupation. It is autonomous and its affairs are directed by an executive committee, created and empowered by direct vote of the members in formal meetings. Certain organisations of this type, extending over a considerable area (such, for example, as miners' associations), are divided, mainly for the purpose of the collection of subscriptions, into subordinate departments, for each of which a collector or shop-steward is appointed. These sub-departments are known as "lodges" or "agencies."

(ii.) *State Associations.*—State unions have a head office or "lodge," generally in the capital town of the State in which they operate, and branch "lodges" in the localities which form the chief industrial centres for wage-earners following the trade or occupation organised. The degree of autonomy enjoyed by the branch lodges varies, but generally ,ne members of the branches possess full powers of government over their own affairs. In some unions, however, certain questions, such as control of disputes, matters of finance, and power to impose levies, are expressly vested in a *central executive* appointed by the whole of the members. Secretaries of lodges furnish periodic statements as to membership, subscriptions and funds, as well as copies of balance-sheets to the head office secretary, and provision is usually made in the rules to the effect that each lodge may retain a specified sum in order to meet working expenses of the lodge, but all amounts over that sum must be paid into a general fund controlled by trustees appointed by the whole union. The object of this arrangement is to provide a financial basis for general organising purposes or for concerted action in matters affecting the welfare of the union as a whole. An important example of this type of union is the State union, organised by localities, and not by trade or occupation. Any "bona-fide worker" may become a member of such a union, and the rules provide for the organisation of branches sending delegates to district committees, with a central executive and annual conference.

(iii.) *Interstate or Federated Unions.*—A union of this type consists of a group of organisations covering a larger territory than a single State, but ordinarily having jurisdiction over but one trade or several closely allied trades. An inter-State union has a central executive office situated, generally, in one of the metropolitan towns. In most cases there is also a head State office in each State in which the union operates. Though generally possessing wide powers of self-government in each State, the supreme authority is vested in the annual conference of delegates and in a central executive body. State branches often have sub-branches throughout the State. These sub-branches are generally responsible, and make periodic returns as to membership, finance, etc., to the head State offices, which in turn send in their statements to the general secretary of the whole organisation. The executive or managing committee is usually elected annually at a meeting of the general council, the delegates to which are themselves elected by members of each State branch, the number of delegates from each State being apportioned on a membership basis. The revenue of the central body is ordinarily derived from capitation fees payable by each State, and, after payment of management expenses, is set aside for organising work and for legal expenses, etc. In the case of unions registered under the Commonwealth Conciliation and Arbitration Act 1904-1911, the federal

rules must comply with the provisions of that Act, and similarly in case of a State branch or an independent State union being registered under a State Trade Union or Industrial Act, the rules must comply with the provisions of the State Act.

(iv.) *Australasian, British and International Organisations.*—An association of this type represents a group of State unions forming an Australian section of a wider organisation extending to other parts of the world. For example, in regard to persons occupied in the merchant service, it has been found advantageous and convenient, in view of the nomadic nature of the occupations, to include the organisation of the workers in New Zealand with those in Australia. The control of such a union is primarily vested in a federal council, consisting of delegates from the "districts." District councils have cognizance of all matters of merely local interest.

Another type of organisation is the Australian section of the British national or international organisation, which may have branch sections also in Canada, the United States, New Zealand, South Africa, and other countries. In so far as these Australian sections are concerned, they do not differ widely from the inter-State or federated unions, to which reference has already been made.

4. Number and Membership of Trade Unions and Branches, 1912.— The following table gives particulars of the number of trade unions, the number of branch unions and the number of members in each State and the Commonwealth at the end of the year 1912.

Number of Trade Unions, Branch Unions and Membership, 1912.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Total.	C'wlth.*
No. of Separate Unions ..	177	151	67	78	97	51	621	†408
No. of Branches	453	241	226	62	177	33	1,192	1,405
No. of Members	192,626	116,557	44,768	37,336	33,282	8,655	433,224	433,224

* Allowing for Inter-State excess. † This figure represents the number of distinct organizations and Inter-State groups of organisations in the Commonwealth. It does not represent the total number of organisations which are practically independent and self-governing. (See remarks below).

In the above table the number of separate unions in each State furnishes the number of unions which are represented in each State (exclusive of branches within a State). That is to say, each union represented in a State is only counted once, regardless of the number of branches in that State.

Except in the last column, the number of branches indicates the number of branches of State head offices, which may, of course, themselves, be branches of an inter-State or larger organisation. In taking the total number of separate unions in the Commonwealth (see last column), it is obvious that, in the case of inter-State and similar unions, there will be duplication, since each such union is counted once in each State in which it has any branches. In the figures specified in the last column, deduction is made for this duplication. State branches of inter-State or federated unions, as well as sub-branches within a State, are included under the heading "branches" in the second line of the last column. It should be observed, however, that the scheme of organisation of these inter-State or federated unions varies

greatly in character, and the number of separate Commonwealth unions does not fairly represent the number of practically independent organisations in Australia. In some of these unions the State organisations are bound together under a system of unification with centralised control, while in others the State units are practically independent and self-governing, the federal bond being loose and existing only for one or two specified purposes. It may be seen, therefore, that there are 408 distinct organisations and inter-State groups of organisations in the Commonwealth, having 1405 State branches and sub-branches, and a total of 433,224 members.

5. **Number of Unions and Membership in Industrial Groups, 1912.**—The scheme of industrial classification adopted for the grouping of unions has already been referred to (see page 6). The following table gives the number of unions and members thereof in each State. The number of unions specified for each State refers to the number of different unions represented in each State; that is to say, inter-State or federated unions are counted once in each State in which they are represented, but sub-branches within a State are not counted. In order to avoid disclosing the affairs of individual unions, in cases where there are only either one or two unions in any group in a State, the membership is not given separately.

Number of Unions and Numbers in Industrial Groups in Each State, 1912.

Industrial Groups.†	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	Total.
NUMBER OF UNIONS.							
I. Wood, Furniture, etc.	4	4	6	4	4	2	24
II. Engineering, Metal Works, etc.	16	20	9	12	10	4	71
III. Food, Drink, Tobacco, etc.	20	18	7	8	12	5	70
IV. Clothing, Hats, Boots, etc.	9	11	3	5	3	2	33
V. Books, Printing, etc.	7	10	3	2	6	2	30
VI. Other Manufacturing	26	21	6	12	10	5	80
VII. Building	14	14	8	7	10	7	60
VIII. Mining, Quarries, etc.	16	3	1	2	4	2	28
IX. Railway and Tramway Services	7	3	4	3	5	3	25
X. Other Land Transport	6	5	3	2	2	1	19
XI. Shipping, etc.	12	5	5	7	4	8	41
XII. Pastoral, Agricultural, etc.	3	6	1	1	2	1	14
XIII. Domestic, Hotels, etc.	8	6	2	3	6	2	27
XIV. Miscellaneous	29	25	9	10	19	7	99
Total	177	151	67	78	97	51	621
NUMBER OF MEMBERS.							
I. Wood, Furniture, etc.	6,238	4,462	1,635	1,421	3,773	*	17,529‡
II. Engineering, Metal, Works, etc.	12,912	9,169	1,944	3,862	1,841	225	29,953
III. Foods, Drink, Tobacco, etc.	11,273	8,771	4,286	2,214	1,268	320	28,132
IV. Clothing, Hats, Boots, etc.	5,936	7,728	1,245	1,005	468	*	16,382‡
V. Books, Printing, etc.	3,355	3,166	484	*	406	*	7,420‡
VI. Other Manufacturing	12,619	7,756	578	1,699	2,026	160	24,838
VII. Building	10,719	8,185	2,174	2,236	1,893	402	25,609
VIII. Mines, Quarries, etc.	21,731	5,791	*	*	6,670	*	34,192‡
IX. Railway and Tramway Services	31,626	12,728	2,931	2,865	4,725	1,130	56,005
X. Other Land Transport	4,708	5,220	1,878	*	*	*	12,806‡
XI. Shipping, etc.	17,540	6,026	5,039	4,136	1,530	729	35,000
XII. Pastoral, Agricultural, etc.	21,624	15,621	*	*	*	*	50,726‡
XIII. Domestic, Hotels, etc.	6,008	4,869	374	1,733	1,249	*	14,233‡
XIV. Miscellaneous	26,337	17,065	13,262	7,338	5,559	430	69,991
Total	192,626	116,557	44,768	37,336	33,282	8,655	433,224

† See page 6 hereinbefore.   * Not available for publication separately; included in State and Commonwealth Totals.   ‡ Incomplete, see footnote *.

It may be seen that, with the exception of Group XIV., Miscellaneous, the membership is greatest in Group IX., Railway and Tramway Services (56,005 members), followed fairly closely by Group XII., Agricultural, Pastoral, etc., with over 50,000 members. The least important group from the point of view of membership is Group IV., Books, Printing, etc., with 7580 members.

6. **Number of Male and Female Members of Unions, 1912.—** The total membership of trade unions in Australia at the end of the year 1912 was 433,224, consisting of 415,554 males and 17,670 females. It may be seen from the following table that the greatest number of females in any individual group belong to Group IV. (Clothing, Hats, Boots, etc.), which comprised 6801 female members.

Number of Male and Female Members of Trade Unions in Australia, 1912.

Particulars.	Industrial Group No.*														Total.
	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.	XIV.	
Males ...	18,567	29,953	25,951	9,890	7,302	23,755	25,609	39,203	56,005	14,546	35,000	52,080	10,379	67,314	415,554
Females	2	...	2,181	6,801	912	1,083	...	...	...	4	...	100	3,910	2,677	17,670
Total ...	18,569	29,953	28,132	16,691	8,214	24,838	25,609	39,203	56,005	14,550	35,000	52,180	14,289	69,991	433,224

* As to classification in industrial groups see page 6 hereinbefore.

These figures shew that the females comprised in Groups IV. (Clothing, etc.) and XIII. (Domestic, Hotels, etc.) amount to 10,711, or 60.6 per cent. on the total female membership. Of the total membership of all groups, 415,554, or 95.9 per cent., were males, and 17,670, or 4.1 per cent., females.

7. **Percentage of Male and Female Members of Unions on Total Number of Employees 20 years of age and over, 1912.—**The results of the Census taken in 1911 shew the percentage of male and female employees (i.e., persons "in receipt of wages or salary," and persons "unemployed"), 20 years of age and over, on the total male and female population. Applying these percentages to the estimated total male and female population in 1912, the estimated number of adult employees of each sex in 1912 may be obtained.

The following table shews separately for males and females and for each State (a) the number of members of trade unions, (b) the estimated total number of employees of each sex, 20 years of age and over, in all professions, trades, and occupations, and (c) the percentage of the former (a) on the latter (b). It should be pointed out that *the estimated total number of employees comprises all persons (over the age specified) in receipt of wages or salary, as well as those unemployed;* the estimate therefore includes a large number of adults who are either not eligible at all for membership of any trade union (such as certain persons employed in professional occupations) or who, while eligible for membership in so far as the nature of their trade or occupation is

concerned, do not reside in a locality which is covered by any union embracing the particular trade or occupation followed. It is also proper to observe that the age at which persons are eligible for membership varies in different unions. The Census results are classified in quin-quennial age groups, and the sum of the groups 20 years of age and over is taken as more closely approximating to the average age of admission to membership than that of any other groups.

Percentage of Male and Female Members of Unions on Estimated Total Number of Male and Female Employees, 20 years of Age and over, in all Professions Trades, and Occupations, 1912.

MALES.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	C'wth.
No. of Members of Unions ..	185,524	109,860	44,139	35,258	32,299	8,474	415,554
Estimated Total No. of Employees 20 yrs. of age and over	368,444	249,806	132,242	80,631	78,898	34,578	944,599
Percent. of Members on Estimated Total No. Employees	50.35	43.98	33.38	43.73	40.94	24.51	43.99

FEMALES.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	C'wth.
No. of Members of Unions ..	7,102	6,697	629	2,078	983	181	17,670
Estimated Total No. of Employees 20 yrs. of age and over	74,891	75,055	23,927	17,510	11,595	7,235	210,213
Percent. of Members on Estimated Total No. Employees	9.48	8.92	2.63	11.87	8.48	2.50	8.41

As regards males, it may be seen that the percentage of members of trade unions on the estimated total number of employees, 20 years of age and over, ranges from 24.51 in Tasmania to over 50 in New South Wales, the proportion for the whole Commonwealth being just on 44 per cent. The percentage of female members is, of course, much lower, viz., 8.41 for the whole Commonwealth; it is again lowest in Tasmania (2.5 per cent.), but is highest in South Australia (11.87 per cent.).

8. Development of Trade Unions in Australia, 1891 to 1912.—The following table shews for the years specified the total number of trade unions in the Commonwealth, and the number and membership of those unions for which returns are available. The estimated total membership of all unions is shewn in the last line. The number of unions specified is the sum of the number of separate unions represented in the several States, no deduction having been made for inter-State excess. (See paragraph 5 hereinbefore.)

The figures given do not include particulars of comparatively small and unimportant unions which were in existence prior to the year 1912, but which, by that year, had either become amalgamated with other unions or had been disbanded or become defunct. Particulars for the more important unions in existence prior to 1912, but not in existence in that year, have, however, been included in all cases where possible. The actual returns received at this Bureau from trade unions have, in some instances, where memberships for past years were not given, been supplemented from particulars published by the State Registrars of Trade Unions.

Number and Membership of Trade Unions in Commonwealth, 1891 to 1912.

Particulars.	1891.	1896.	1901.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
Total Number of Unions ..	124	134	198	302	323	378	419	482	573	621
No. of Unions for which membership available ..	72	83	139	253	286	334	375	442	542	621
Membership of these Unions	31,871	34,108	68,218	147,049	172,310	212,483	244,747	277,047	344,999	433,224
Estimated Total Membership of all Unions	54,888	55,066	97,174	175,529	194,602	240,475	300,184	302,119	364,732	433,224

These figures shew that while the ~~1891~~ number of unions in 1912 was just over five times the number in ~~1901~~, the estimated membership during the same period increased nearly 8 times. During the last six years the estimated annual increase in membership was greatest in the year 1912, when it amounted to no less than 68,492, and least in 1910, when it was only 1985.

The present tendency of the trade union movement in Australia is towards "closer unionism," generally by the organisation of the workers in two or more States into inter-State or federated unions, and by the grouping together of trades or industries more or less closely allied. Particulars are not available for past years as to the number of separate organisations in the Commonwealth, that is, allowing for inter-State excess in the enumeration of unions within each State (see page 9.) It appears certain, however, that the number of separate organisations and inter-State groups of organisations in the Commonwealth has, in view of the tendency referred to, increased to a less extent than the figures in the above table indicate.* It is expected that in future years this tendency will be clearly reflected in the returns in which deductions will be made for inter-State excess.

9. **Classifications of Unions in Commonwealth according to Number of Members, 1912.**—The subjoined table shows the number and membership of all trade unions in the Commonwealth in 1912, classified according to size. In this table inter-State unions are, of course, only counted once (see page 9 hereinbefore).

*On page 9 it is shewn that the number of separate organisations and interstate groups of organisations in the Commonwealth in 1912 was 408, compared with 621, the sum of the separate unions in the several States.

Classification of Unions in Commonwealth according to Number of Members, 1912.

Classification.	10,000 and over.	5,000 and under 10,000.	2,000 and under 5,000.	1,000 and under 2,000.	500 and under 1,000.	300 and under 500.	200 and under 300.	100 and under 200.	50 and under 100.	Under 50.	Total.
Number of Unions	7	15	26	43	32	32	39	67	72	75	408
Membership	132,335	99,718	79,614	60,558	22,585	12,234	9,483	9,323	5,106	2,268	433,242

It may be seen that the seven largest unions (in the group 10,000 and over) comprise 132,335, or no less than 30.5 per cent. of the total membership of all unions, while the next group (5000 and under 10,000) comprises 99,718 members, or 23.0 per cent. It appears probable that the tendency towards "closer unionism" will accentuate this centralisation in the larger organisations in future years.

10. **Number and Membership of Interstate or Federated Unions, 1912.**—Reference has already been made to the present tendency towards closer unionism. The following table gives particulars as to the number and membership of inter-State or federated unions in 1912:—

Number and Membership of Interstate or Federated Unions in Commonwealth, 1912.

Particulars.	Unions Operating in—					Total.
	2 States.	3 States.	4 States.	5 States.	6 States.	
Number of Unions	20	11	17	14	10	72
Number of Members	31,358	18,147	55,517	43,548	131,201	279,771

It appears, therefore, that 72 out of the 408 separate associations and groups of associations in the Commonwealth are organised on an inter-State basis. The membership of these 72 unions amounts to 279,771, or no less than 64.6 per cent. on the total membership (433,224) of all unions.

11. **Central Labour Organisations.**—In each of the metropolitan towns, as well as in a number of other industrial centres, delegate organisations, consisting of representatives from a group of trade unions, have been established. Their revenue is raised by means of a per capita tax on the members of each affiliated union. In most of the towns where such central organisations exist the majority of the local unions are affiliated with the central organisation, which is usually known as the Labour or the Trades Hall Council or the Labour Federation. In Queensland and Western Australia a unified system of organisation extends over the industrial centres throughout each State. In each of these States there is a provincial branch of the Australian Labour Federation, having a central council and executive, a metropolitan and branch district councils, to which the local bodies are

affiliated.   The central council, on which all district councils are re-
presented, meets periodically.   In the other four States, however, the
organisation is not so close, and though provision usually exists in
the rules of the central council at the capital town of each State for
the organisation of district councils or for the representation on the
central council of the local councils in the smaller industrial centres
of the State, the councils in each State are, as a matter of fact, in-
dependent bodies.

The table below shews the number of metropolitan and district
or local labour councils, together with the number of unions and branches
of unions affiliated therewith, in each State in February, 1913.

Central Labour Organisations—Number and Unions Affiliated, 1913.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	C'wth.
No. of Councils	3	4	2*	4	11	1	25
Approximate No. of Unions and Branch Unions Affiliated ..	151	186	21	73	130	23	584

* In addition two important unions are directly affiliated to the Provincial
Council of the Australian Labour Federation.

The figures given in the above table as to number of unions do
not necessarily represent separate unions, since the branches of a large
union may be affiliated to the local trades councils in the several towns
in which they are represented.

Between the trade union and the central organisation of unions
may be classed certain State or district councils, organised on trade
lines and composed of delegates from separate unions, the interests of
the members of which are closely connected by reason of the occupations
of their members, such, for example, as delegate councils of bakers,
bread carters and mill employees, or of unions connected directly or
indirectly with the iron, steel or brass trades, or with the building trades.

SECTION III.—FLUCTUATIONS IN EMPLOYMENT AND UNEMPLOYMENT.

1. General.—In the following Section of this report, the method of index-numbers has been applied to trace the course of rates of wages in the Commonwealth since 1891. In the first report issued by the Labour and Industrial Branch of this Bureau, and in section VI. of this report, changes in prices and cost of living have been traced by a similar method. In order to further elucidate the progress of events, it is desirable to supplement that information, so far as practicable, by furnishing index-numbers which disclose the fluctuations in employment and unemployment, and in the present section an attempt is accordingly made to do this.

Employment index-numbers serve not only to throw light upon the figures shewing the course of wages, prices, and cost of living, inasmuch as they indicate the relative loss of time through lack of employment, but also furnish a useful measure of the fluctuations of industrial activity, regarded as a whole. In this connection, it may be said that while export statistics relate only to the margin of national production which is sent overseas, statistics of employment measure, on the other hand, the relative activity or depression of the whole of the industries to which they relate, including, that is, production for the home market as well as for export.

2. Scope and Method of Inquiry.—For the purpose of the present inquiry, it has been necessary to perform the task of carrying the figures backwards, as far back as the year 1891, from special returns collected from the secretaries of trade unions. The forms used for this purpose have already been referred to, and a specimen is shown in Appendix I. The Bureau has to acknowledge with thanks the readiness with which such records as exist were furnished by the persons concerned.

In Australia, but few of the trade unions pay any form of unemployment benefit, and consequently accurate and complete records of unemployment are difficult to obtain. For that reason the present investigation for past years was advisedly limited to a record of the numbers unemployed at the end of each year. The results are, therefore, subject to certain limitations, inasmuch as they do not take into account variations in employment and unemployment throughout the year, due to seasonal activity and other causes.

For the above reasons it is not safe to conclude that the actual percentage returned as unemployed in past years by trade unions at the end of each year is equal to the average percentage unemployed during the year. Nevertheless, for the purpose of making comparisons and shewing tendencies over a period of years, the percentages returned as unemployed, though not exact, are the most satisfactory figures avail-

able, and the average percentages and index-numbers computed for the several States and groups of unions may be taken as denoting the true course of events with substantial accuracy.*

It may be mentioned that, in order to overcome the difficulties alluded to in regard to seasonal fluctuations, returns as to numbers unemployed are now being collected each quarter (since the beginning of the year 1913) from trade unions.

3. Number Unemployed in Various Industries, 1891 to 1912.—
The subjoined table shows for each of the years specified:—

(a) The number of unions for which returns as to unemployment are available.

(b) The number of members of such unions.

(c) The number of members unemployed, and

(d) The percentage of members unemployed on the total number of members of those unions for which returns are available.

The information given in this table obviously does not furnish a complete register of unemployment. In the first place, it relates only to the number unemployed at the end of the year (see preceding paragraph hereof), and, secondly, it does not cover more than a part of the industrial field. The latter question, as to how far the trade union returns can be used to supply inferencees as to the general state of the labour market, depends, of course, upon the extent to which the men covered by them can be taken as a fair sample of the industrial population. A brief examination of the following figures shows that for the earlier years particulars as to unemployment are available for only a small number of unions, while for the year 1912, returns are included for 464 unions, with 224,023 members, representing nearly 75 per cent. on the total number of unions, and 52 per cent. on the total membership. And attention should here be drawn to the fact that the value of the comparisons which can be made is, to some extent, vitiated by the fact that returns are not available for the same unions throughout. As regards the year 1912, the table on page 20 shews that for most of the important industries, returns are available for a considerable number of unions and members. It is not unlikely, however, that particulars of unemployment are, on the whole, more generally available for those trades in which liability to unemployment is above the average of skilled occupations. Thus the building and engineering industries are heavily represented in the returns, while such comparatively stable industries, such as railway service, are hardly represented at all. On the other hand, unskilled casual labour cannot, in the nature of the case, be well represented in the returns, which relate mainly to skilled workmen.

Thus, for some reasons, the percentage given is likely to be greater, and for other reasons less, than the true average percentage unemployed throughout the country.

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* Some description of the various methods of testing the state of the labour market may be found in the Board of Trade Memorandum on Industrial Conditions (Second Series). Cd. 2337, 1904, pp. 79 to 125.

See also "Rapport Préliminaire sur la Statistique Internationale du Chômage," M. Louis Varlez, Gand, 1912.

Unemployment in Trades Unions, Number and Membership of Unions for which Returns available, and Number and Percentage Unemployed, 1891 to 1912.

Particulars.	1891,	1896.	1901.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
No. of Unions for which returns available ...	25	25	39	47	51	68	84	109	160	464
Membership	6,445	4,227	8,710	11,299	13,179	18,685	21,122	32,995	67,961	224,023
No. unemployed at end of year	599	457	574	753	757	1,117	1,223	1,857	3,171	12,441
Percentage of unemployed at end of year*...	9.29	10.81	6.59	6.67	5.74	5.98	5.79	5.63	4.67	5.55

*See graph in paragraph 2, Section VIII.

The figures given in the last line of the above table indicate the percentage returned each year as unemployed, that is to say, they shew, on the average, the *percentage of full time which was lost during the year,* on the assumption that the unemployment returns for the end of the year are representative of the state of employment throughout the year.

It may be seen that the extent of unemployment was greatest in 1896 and least in 1911. The significance of the figures may be better appreciated by reference to the graph in paragraph 2 of the last section of this report. The general trend of the graph shews a decline in unemployment since 1896. In 1912, however, there was an increase of about 0.8 per cent.

The high percentage for 1891 was largely due, no doubt, to the dislocation of industry following the maritime strike, while the still higher percentage for 1896 may be traced to the prevalent industrial depression, especially in Victoria, caused by the bank failures and the severe droughts. It may be noticed that, though the number of unions reporting in 1896 is the same as in 1891, the number of members shows a large reduction. This indicates that, in time of severe industrial depression, when employment is bad, the members tend to drift away from the unions. Many probably leave their ordinary places of residence in search of work elsewhere.

The accuracy of the above results as an index to the general state of employment among *all* male wage-earners in Australia is confirmed by the results obtained from the censuses of 1891, 1901 and 1911, the closeness of the percentages obtained from these two independent sources for the two latter years being remarkable. A comparison of the results is shewn in following table:—

Unemployment in Australia, Comparison between Results obtained from Trade Union Inquiries and from Censuses of 1891, 1901 and 1911.

Particulars.	Percentage Unemployed in—		
	1891.	1901.	1911.
From Trade Union Returns ..	9.29	6.59	4.67
From Census Results*	7.46†	6.50†	4.53

* For all male wage earners, excluding "professional" occupations.
† Based on results for New South Wales and Victoria only.

It will be noticed that while the figures for the years 1901 and 1911 are very close, there is a difference of nearly 2 per cent. in the results for 1891.   This may probably be accounted for by the fact that the trade union returns relate to the end of the year, while the census was taken in March, the intervening period being one of increasing industrial depression following on the maritime and shearers' strikes and the collapse of the boom.

4. **Employment Index-Numbers, 1891 to 1912.**—For greater convenience of examination and comparison with other statistical data, the percentages of unemployed have been subtracted from 100, so as to shew the percentage of members *not returned as unemployed.*   These percentages are shewn in the first line of the subjoined table.   It is, however, to be particularly noted that these figures must not be regarded as indicating the percentage of full employment which was obtained in each year by an average worker.   Apart from such questions as overtime and short time, the loss of time through sickness, holidays, strikes, or unpunctuality is not included.*   This caution is necessary in order to prevent misleading inferences being drawn. The percentages given indicate merely the average percentage of members of trade unions who were not returned by them as being out of work through want of employment.

The final step is to construct an employment index-number in the usual way, by taking employment at the end of the standard year 1911 as base (= 1000), and computing the level of employment for each of the other years of the series in relation to that which existed in the basic year.

Percentage of Members of Trade Unions not returned as Unemployed and Employment Index-Numbers, 1891 to 1912.

Particulars.	1891.	1896.	1901.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
Percentage *not* returned as unemployed ...	90.71	89.19	93.41	93.33	94.26	94.02	94.21	94.37	95.33	94.45
Employment Index-Number 1911=1000. ...	952	936	980	979	989	986	988	990	**1000**	991

The figures given in the first line of the above table indicate the percentage of full time worked on the average in each year, on the assumption that the unemployment returns for the end of the year are representative of the state of employment throughout the year; while those in the second line shew (on the same assumption) the relative state of employment in each year compared with the year 1911, the state of employment being measured, of course, by the percentage of full time worked.   It may be seen that employment was worst in 1896, and that for none of the years under review was it so good as in 1911.

5. **Unemployment in Different Industries, 1912.**—The following table shews the relative percentages unemployed in several of the four-

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* See "British and Foreign Trade and Industrial Conditions Memoranda by the Board of Trade," Cd. 2337 1904, p. 83.

teen industrial groups.   Attention has already been drawn to the fact
that some of the industries, such as Railways, Shipping, and Agricul-
ture, are insufficiently represented.   For those industries in which
employment is either unusually stable or, on the other hand, excep-
tionally casual, information as to unemployment cannot ordinarily be
obtained from trade unions.   Particulars are not, therefore, shewn
separately for Groups IX. (Railway, etc., Services), XI. (Shipping,
etc.) and XII. (Agricultural, Pastoral, etc.), such returns as are avail-
able for these groups being included in the last group, "Other and
Miscellaneous."

Unemployed in different Industries at end of year 1912.

Industrial Group.	No. of Unions in Existence.	No. of Unions Reporting.	Membership of Unions.	No. of Unemployed in Unions Reporting.	Percentage Unemployed.
I. Wood, Furniture, &c. ..	24	22	15,289	570	3.73
II. Engineering, Metal Works, &c.	71	62	26,217	1,927	7.35
III. Food, Drink, Tobacco, &c.	70	57	15,995	1,174	7.34
IV. Clothing, Hats, Boots, &c.	33	29	15,833	995	6.29
V. Books, Printing, &c. ..	30	29	8,161	231	2.83
VI. Other Manufacturing ..	80	70	23,053	1,600	6.94
VII. Building	60	54	22,782	1,251	5,49
VIII. Mining, Quarrying, &c. ..	28	21	26,925	1,513	5.62
X. Other Land Transport ..	19	13	12,326	135	1.10
XIII. Domestic, Hotels, &c. ..	27	21	13,604	899	6.61
IX., XI., XII., and XIV., Other and Miscellaneous ..	179	86	43,838	2,146	4.80
Total	621	464	224,023	12,441	5.55

    The above figures indicate the relative degree of unemployment in
the various industrial groups *at the end of the year* 1912. They do not
necessarily indicate relative unemployment *during* the year, inasmuch
as they do not take into account seasonal variations.   It appears,
however, that the effect on the aggregate result of this omission is
relatively unimportant since it may be said that, in the aggregate re-
sult those trades which are specially active at one period of the year
are counterbalanced by those which are dull at that time.   Moreover,
reference has already been made to the fact that the accuracy of the
general results is strongly confirmed by comparison with the census
results (see p. 18-).

    From the above figures it may be seen that the degree of unemploy-
ment varies considerably in different industries, ranging from 1.1 per
cent. in Group X. (Other Land Transport, comprising chiefly carters
and drivers) to 7.35 per cent. in Group II. (Engineering, Shipbuilding,
Smelting, Metal Works, etc.)

6. Unemployment in each State, 1912.—Any deductions which can be drawn from the data collected as to the relative degree of unemployment in the several States are subject to certain qualifications (in addition to those already stated on page 16-), inasmuch as the industries included in the trade union returns are not uniform for each State. In comparing the results for the individual States, it must therefore be borne in mind that, to some extent, at least, comparisons are being drawn between different industries and not only between different States. Nevertheless, since the industrial occupations of the people vary considerably in the several States, all comparisons between the States based on comprehensive data as to unemployment must, to some extent, suffer from the defect indicated.

Unemployment in each State at end of year 1912.

Particulars.	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	C'wlth.
No. of Unions in Existence	177	151	167	78	97	51	621
No of Unions Reporting ..	142	107	50	54	77	34	464
Membership of Unions Reporting	98,307	71,805	13,302	19,510	17,769	3,380	224,023
No. of Members Unemployed	4,869	4,822	614	989	1,033	114	12,441
Percentage Unemployed ..	4.95	6.71	4.62	5.07	5.82	3.37	5.55

The above figures shew that, at the time indicated, the degree of unemployment was greatest in Victoria, followed, in the order named, by Western Australia, South Australia, N.S. Wales, and Queensland, with Tasmania last.

7. Trade Unions and Records of Unemployment.—The figures given in paragraph 4 shew only changes in the average state of employment, and throw no light on the internal distribution of unemployment on the whole body of work people. For example, they do not provide the requisite data for computing the number and proportion of those who were in full employment during a given year, or the number and proportion who lost, say, five, ten, or any given percentage of their working time.

The data from which valuable information of this kind can be obtained is available for only two or three unions in the Commonwealth, although the amount of work necessary to keep the requisite records is not great. If other unions follow the example, material of much sociological value will be available for discussion. It may be additionally noted, however, that a number of unions are recognising the importance of the matter. For example, one union has recently established a card system from which complete information as to unemployment can be obtained from their members.

Through the courtesy of the general secretary of that union, copies of the cards used are reproduced below.

Cards used for Collection of Information as to Unemployment.

The Australian Plumbers and Gasfitters Employes' Union.

Registered under the Commonwealth Conciliation and Arbitration Act, 1904-11

Head Office:
TRADES HALL, MELBOURNE, VICTORIA.
H. E. FOSTER, General Secretary

Date————————————

Secretary————————————Branch

I hereby notify you that I ceased working for

————————————————————

on ————————————— *and am now unemployed.*

Name————————————————

Card   Address————————————

No. ————   ————————————

Branch of Trade————————————

NOTE.—Exemption from payment of dues will not be granted unless this card is forwarded to the Secretary of your branch immediately you are unemployed.

The Australian Plumbers and Gasfitters Employes' Union.

Registered under the Commonwealth Conciliation and Arbitration Act, 1904-11

Head Office:
TRADES HALL, MELBOURNE, VICTORIA.
H. E. FOSTER, General Secretary.

Date————————————

Secretary.————————————Branch

Please take notice that I have started work for

————————————————————

at ————————————————————

on————————————————

Name————————————————

Card   Address————————————

No.————   ————————————

Branch of Trade————————————

NOTE.—This Card should be filled in and forwarded to your Branch Secretary within 48 hours of starting work.

The two forms used, viz., those for reporting cessation and starting of work, are printed on cards of different colours, and on return to the secretary are filed in pairs. The number of days of unemployment in each case can readily be obtained and the necessary tabulations performed with facility and economy.

SECTION IV.—CHANGES IN RATES OF WAGES.

1. **General.**—Arrangements have been made for records to be kept from the commencement of the year 1913 of all changes in rates of wages and hours of labour, and the number of workers to which these apply, as well as of the methods by which such changes were brought about. Results will be systematically furnished by using the method of index-numbers, which will be computed for different groups of industries and for different localities. By way of preliminary to the publication of the results of these current investigations, inquiries have been made with a view to shewing the general course of, and fluctuation in, wages since the year 1891. The data were mainly collected on the forms already referred to (see specimen in Appendix I.), from the secretaries of trade unions, and refer generally to the "union" rate of wages. In some cases returns were also received from certain Government departments (e.g., as to wages of railway employees). The returns furnished by trade union secretaries were carefully examined on receipt and were checked, where possible, by reference to awards of industrial courts and determinations of wages boards; in case of any apparent discrepancy or anomaly, they were referred back for further investigation, generally through the labour agents and correspondents of the Bureau. In some cases the particulars received from the trade unions were supplemented by returns compiled from information given in official reports of State departments. It may be mentioned, however, that the particulars given in such reports and other official documents are, for most of the States, meagre and unsatisfactory, and that owing to certain limitations in the methods of compilation and presentation, such data as are given are not generally suitable to form the basis of a comprehensive investigation, such as is now attempted. Hence the necessity arose for collecting most of the data *de novo*.

2. **Methods of Compilation and Weighting.**—After being checked, the returns were tabulated for each State and each class of industry and an arithmetic average wage was computed for each year, State and class. Owing to the difficulty in obtaining any satisfactory data as to the number of persons engaged in each of the occupations for which the wages were specified, no *detailed* system of weights could be applied;* arithmetic averages were therefore taken. In the computation of the final results, however, a careful system of weighting was adopted. For example, in computing the results for each State in any year the average wage in each industry was multiplied by a number (weight) representing the relative number of persons engaged

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* Though a great deal of information as to the number of persons engaged in different industries and occupations is available from the Census results, it was found impracticable to bring the classification of these results into line with the detailed classification of occupations in the trade union returns of wages.

in that industry in the particular State. The sum of the products thus obtained, divided by the sum of the weights, represents the relative aggregate wage for the particular year and State.*

The whole question of weighting was referred to in some detail in Report No. I. (*Prices, Price Indexes and Cost of Living*) of the labour and industrial branch of this Bureau. With the necessary verbal modifications, many of the statements there made and the problems there considered in regard to the subject of prices, etc., refer equally to the question of weighting in other investigations, such as the present. Any inquirer wishing to thoroughly understand the subject may refer to that report.

3. Variations of Wage Index Numbers in Various Industries 1891 to 1913. —The total number of different occupations for which particulars as to wages are available, back to 1891, is 652. These wages relate generally to union rates, but in a few cases, more especially for the earlier years, when there were no union rates fixed, predominant or most frequent rates have been taken. The 652 occupations have been distributed over the fourteen industrial groups already specified and index-numbers computed for each group for the whole Commonwealth. Wage index-numbers for similar industry groups in each State are not published, since the data for the various occupations included were not sufficiently extensive or uniform to furnish fully comparable results. The wages refer generally to the capital town of each State, but in industries such as mining and agriculture, the rates in the more important industrial centres have been taken.

The following table shews wage index-numbers for the whole Commonwealth in each of the fourteen industrial groups during the years specified, wages in the year 1911 being taken as the base (= 1000). Rates of wages for females are not included.

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* The weights used in the computation of the wage index-numbers were as follows:—

Wage Index-Numbers, Weights used for each Industrial Group*.

Particulars.	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.	XIV.
N.S.W. ..	136	228	199	84	65	162	252	343	187	74	137	704	134	902
Vic. ..	118	195	160	95	58	141	190	157	136	54	65	455	95	734
Q'land ..	67	62	108	23	20	34	70	133	73	22	45	352	45	302
S.A. ..	24	71	45	16	13	40	68	29	48	17	44	182	24	223
W.A. ..	65	36	32	7	8	16	32	142	40	9	32	118	31	158
Tas. ..	25	14	17	6	5	7	20	49	10	6	12	104	10	80
C'wlth ..	435	606	561	231	169	400	632	853	494	182	335	1,915	339	2,399

* As to classification in industrial groups, see page 6.

Variations in Wage Index-Numbers in different Industries in the Commonwealth, 1891 to 1912. (Wages in 1911 = 1,000.)

Particulars.	No. of Occupations included.	1891.	1896.	1901.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
I. Wood, Furniture, etc. ..	27	909	835	906	910	932	934	938	975	1,000	1,017
II. Engineering, Metal Work, etc.	101	875	873	888	900	913	930	935	946	1,000	1,038
III. Food, Drink, etc. ..	34	751	747	878	895	910	913	922	936	1,000	1,047
IV. Clothing, Hats,Boots, etc.	13	730	725	722	857	872	884	953	995	1,000	1,009
V. Books, Printing, etc. ..	25	907	850	866	872	879	888	931	959	1,000	1,034
VI. Other Manufacturing ..	102	892	861	895	894	893	903	911	935	1,000	1,023
VII. Building	67	813	764	866	883	911	919	932	959	1,000	1,027
VIII. Mining, Quarries, etc.	71	949	880	893	915	935	934	938	978	1,000	1,018
IX. Railway Services, etc.	68	892	894	918	920	923	927	956	965	1,000	1,046
X. Other Land Transport	9	848	772	874	874	893	919	919	977	1,000	1,091
XI. Shipping, etc.	74	856	773	862	894	904	904	983	984	1,000	1,082
XII. Agriculture, etc. ..	8	810	779	747	800	870	877	938	951	1,000	1,125
XIII. Domestic, Hotels, etc.	17	723	671	674	683	686	706	819	838	1,000	1,008
XIV. Miscellaneous	36	832	812	817	830	875	883	908	957	1,000	1,093
All Groups*	652	848	816	848	866	893	900	923	955	1,000	1,051

* Weighted Average ; see graph in par. 2, Section VIII. hereof.

NOTE.—The figures in the above table are comparable horizontally, but are not directly comparable vertically. This is evident from the fact that the average wage in each industry group (and for all groups) in 1911 is made equal to 1000.

The above figures (for all groups combined) are shewn in the graph in paragraph 2 of the last section of this report. It may be seen that the index-numbers increase during the whole period under review except in 1896, when there was a fall. The wage index-number increased from 848 in 1891 to 1000 in 1911, and 1051 in 1912. It will be observed that the increase from 1891 to 1911 was relatively greatest in Classes XIII. (Domestic, Hotels, etc.), IV. (Clothing, Hats, Boots, etc.), and III. (Food, Drink, Tobacco, etc.), and it is probably in the industries and occupations included in these groups that "sweating" was most prevalent. The relative increase is least in Class VIII. (Mining, Quarries, etc.), the index-number for that group having increased only from 949 in 1891 to 1000 in 1911 and 1018 in 1912.

The index-numbers given in the above table are readily *reversible,* that is to say any year, other than the year 1911, can be taken as base. For example, in Class I. (Wood, Furniture, etc.), if it be desired to ascertain the relative wages compared with, say, £1 in 1891, the index-numbers throughout must be divided by 909 (the index-number in the year to be taken as base). This gives the index-number for 1901 = 19s. 11d. ($^{906}/_{909}$), for 1911 = £1 2s. 0d. ($^{1000}/_{909}$), and for 1912 = £1 2s. 5d. ($^{1017}/_{909}$). Again, for all groups combined, for every £1 payable on the average in 1901, the amount in 1911 was £1 3s. 7d. ($^{1000}/_{848}$), and in 1912 was £1 4s. 9d. ($^{1051}/_{848}$).

In this manner, computing the amount of wages payable in 1901, 1911 and 1912 corresponding to £1 in 1891, the following results are obtained :—

Average Relative Amount of Wages payable in each Industrial Group in 1901, 1911 and 1912, compared with £1 payable on the Average in 1891.

Industrial Groups.	Nominal Rates of Wages in—				Industrial Group.	Nominal Rates of Wages in—			
	1891.	1901.	1911.	1912.		1891.	1901.	1911.	1912.
	s. d.	s. d.	s. d.	s. d.		s. d.	s. d.	s. d.	s. d.
I. Wood, etc. ..	20 0	19 11	22 0	22 5	IX. Railways, etc.	20 0	20 7	22 5	23 5
II. Engineering, etc.	20 0	20 4	22 10	23 9	X. Other Land, etc.	20 0	20 7	23 7	25 8
III. Food, etc. ..	20 0	23 5	26 8	27 11	XI. Shipping, etc.	20 0	20 2	23 4	25 3
IV. Clothing, etc. ..	20 0	19 9	27 5	27 8	XII. Agriculture, etc.	20 0	18 5	24 8	27 9
V. Books, etc. ..	20 0	19 1	22 1	22 10	XIII. Hotels, etc. ..	20 0	18 8	27 8	27 11
V. Other Manufactures ..	20 0	20 1	22 5	22 11	XIV. Miscellanous ..	20 0	19 8	24 0	26 3
VII. Building ..	20 0	21 4	24 7	25 3	All Groups* ..	20 0	20 0	23 7	24 9
VIII. Mining, etc. ..	20 0	18 10	21 1	21 5					

* Weighted Average.

NOTE.—For reasons already indicated the above figures are comparable horizontally (from year to year), but are not directly comparable vertically.

The above figures shew that for all groups combined for every £1, payable on the average according to rates of wages prevailing in 1891, the same amount was payable in 1901, while the amounts payable in 1911 and 1912 were 23s 7d. and 24s. 9d. respectively. The greatest relative increase, as between 1891 and 1912, occurred in Groups III. and XIII. and the smallest in Group VIII.

4. **Variations in Wage Index-Numbers in Different States 1891 to 1912.**—The following table shews the progress in rates of wages for all industries in each State, wages in 1911 being taken as the base (= 1000). These results are based generally upon rates of wages prevailing in the capital town of each State, but in certain industries, such as mining, rates are necessarily taken for places other than the capital towns.

Variations in Wage Index-Numbers in different States, 1891 to 1912. (Wages in 1911 = 1,000.)

Particulars.	No. of Occupations included.	1891.	1896.	1901.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
New South Wales ..	158	858	819	855	883	907	910	939	965	1,000	1,055
Victoria	150	801	768	808	819	870	884	900	938	1,000	1,054
Queensland ..	87	910	874	903	911	916	927	948	962	1,000	1,013
South Australia ..	134	801	803	809	821	847	857	893	939	1,000	1,035
Western Australia ..	69	887	908	913	914	914	921	927	969	1,000	1,034
Tasmania ..	54	939	854	899	937	906	906	915	966	1,000	1,168
Commonwealth* ..	652	848	816	848	866	893	900	923	955	1,000	1,051

* Weighted Average ; see graph in par. 2, Section VIII. hereof.

NOTE.—The figures in the above table are comparable horizontally, but are not directly comparable in the vertical columns. This is evident when it is considered that wages in each State in 1911 are taken equal to 1000.

The above table shews that the relative increase from 1891 to 1911 was greatest in Victoria and South Australia, and least in Tasmania, but in the last named State there was a remarkable increase, amounting to nearly 17 per cent., in 1912. This is, no doubt, accounted for to a large extent by the fact that the wages board system was first adopted in Tasmania in that year.

The index-numbers are reversible, and, as an illustration, the following results have been computed in the manner indicated in the preceding paragraph.

Average Amount of Wages Payable in each State in 1901, 1911, and 1912, compared with £1 payable on the average in 1891.

Year.	N.S.W.		Vic.		Q'land.		S.A.		W.A.		Tas.		C'wlth.*	
	s.	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*
1891	20	0	20	0	20	0	20	0	20	0	20	0	20	0
1901	19	11	20	2	19	10	20	2	20	7	19	2	20	0
1911	23	4	25	0	22	0	25	0	22	6	21	4	23	7
1912	24	7	26	4	22	2	25	10	23	4	24	2	24	9

* Weighted Average.

NOTE.—For reasons already indicated, the above figures are directly comparable vertically but not horizontally.

It may be seen that the relative increase as between 1891 and 1912 was greatest in Victoria, where it amounted to 6s. 4d. per £1, or 31.7 per cent. It was least in Queensland, where it was 2s. 2d. per £1, or 10.8 per cent.

SECTION V.—CURRENT RATES OF WAGES IN DIFFERENT OCCUPATIONS AND STATES.

1. General.—The material presented in this section is designed to be supplementary to the wage index-numbers already given, and also to the periodic records which will be published concerning changes in rates of wages throughout the Commonwealth. The particulars given refer only to time rates of wages payable to journeymen or adult workers, the question of piece rates not having, for the present, been fully investigated. The greater part of the preliminary data was obtained from trade unions towards the close of the year 1912 on the forms already alluded to (see Appendix I.), the rates furnished being those recognised by the trade unions concerned for a full week's work exclusive of overtime. Since the occupations for which rates are given include mainly those trades in which the employees are organised, the rates specified have in most cases been fixed by industrial tribunals, the union rate being generally the same as the minimum rate so fixed. Particulars are, however, included for a number of industries in which the employees are either not organised at all or are not organised in all the States. In such cases either the predominant or union rates are specified where possible.

2. Comparative Table of Time Rates of Wages, 1913.—The information furnished by trade unions has been carefully checked and brought up to date by reference to awards of arbitration courts, determinations of wages boards and industrial agreements. A great deal of detailed information as to rates of wages in the individual States has been published from time to time, but an attempt is here made to coordinate that information, in so far as the more important occupations are concerned, in one comprehensive statement. Owing to the dissimilarity in the multitudinous classification of work and occupations in many of the corresponding determinations and awards in the several States, considerable difficulty was in some cases experienced in coordinating the results. It will be seen that for convenience of comparison *the wages are in nearly all cases presented as a weekly rate,* though in many industries they are actually based on daily or hourly rates, as specified in awards, determinations or agreements. This caution is necessary, in view of the·fact that it is often in those industries and occupations in which employment is of an exceptionally casual or intermittent nature that wages are fixed or paid at a daily or hourly rate. Hence the average weekly earnings in such occupations will probably fall considerably short of the weekly rates specified in the table.

The rates specified refer generally to the capital town of each State, but in industries, such as mining and agriculture, rates are necessarily taken for places other than the capital towns. *The figures given relate to journeymen or adult workers, and represent (except where otherwise specified in the footnotes) the amounts payable for a full week's work of 48 hours.* In every case where the hours of labour constituting a full week's work are other than 48, the number of hours is indicated in the footnotes. Occupations of females are printed in italics.

Weekly Rates of Wages of Journeymen or Adult Workers in the Capital Town of each State, 1913* for a full Week's Work.

NOTE.—Occupations of Females are printed in Italics. Except where otherwise specified in the footnotes, the hours of labour constituting a full week's work are forty-eight.

GROUP I.—WOOD, FURNITURE, SAWMILL AND TIMBER WORKS.

Occupations.	Sydney.		Melb.		Brisbane		Adelaide.		Perth.		Hobart.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Coopers	66	0 to	62	0	66	0	66	0	80	0	60	0
	74	0										
Furniture, including Mattress and Picture Frame.												
Bedding Makers	60	0	57	0	[1]51	4	54	0	60	0	48	0
Cabinet Makers	64	0	60	0	[1]60	6	56	0	69	0	57	0
Carpet Planner	76	0	65	0		..		..		..		..
Carpet Layer	64	0	60	0		..		..		..		..
Chair Makers	64	0	60	0	[1]60	6	56	0	69	0	57	0
French Polishers	64	0	60	0	[1]56	10	56	0	66	0	57	0
Persons operating Boult's Carver	63	0	66	0	[1]60	6	61	6	75	0		..
Upholsterers	64	0	60	0	[1]56	10	56	0	66	0	57	0
Wood Machinists	54	0 to	51	0 to	[1]47	8 to	56	0	60	0 to	54	0 to
	63	0	63	0	[1]60	6			66	0	57	0
Mattress Makers.												
Finishers		..	55	0	[1]53	2	48	0		..	48	0
Makers	60	0	58	0	[1]53	2	52	0	66	0	48	0
Varnishers		..	55	0	[1]47	8	43	0		..	48	0
Picture Frame.												
Compo Workers	52	0	45	0		..		..		..		..
Fitters-up	50	0	48	0		..		..		..		..
General Hands	48	0	48	0		..		..		..		..
Gilders	60	0	50	0		..		..		..		..
Joiners	60	0	50	0		..		..		..		..
Mount Cutters	60	0	50	0		..		..		..		..
Females	[1]25	0	[2]22	6		..		..		..		..
Timber Yard Workers.												
Labourers	46	0	48	0	48	0	48	0	54	0	43	6
Moulding Machinists	56	0	56	0	64	0	57	6	60	0 to	50	0
									66	0		
Ordermen	52	6	54	0	52	0	54	0	57	6	48	0
Planing Machinists	54	0	57	0	56	0	49	6	66	0	60	0
Pullers or Tailers Out	46	0	48	0	48	0 &	45	0 &	57	0	46	6
					52	0	51	0				
Saw Doctors	72	0	72	0	70	0	69	0	72	0	66	0
Saw Sharpeners	60	0	60	0	60	0	60	0	60	0	48	0
Wood Turners	63	0	60	0	62	0	57	0	72	0	54	0

* The rates specified are in most cases the minimum rates payable in the capital towns to journeymen or adult workers under Awards of Commonwealth or State Arbitration Courts, or under Determinations of Wages Boards. Rates payable in the mining, shipping, agricultural, pastoral, etc., industries do not, of course, ordinarily refer to the capital towns.

(1) 44 hours per week.   (2) 45 hours per week.

GROUP II.—ENGINEERING, METAL WORKS, ETC.*

Occupations.	Sydney.		Melb.		Brisbane		Adelaide.		Perth.		Hobart.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Agricultural Implement Makers.												
Assemblers	..	..	48	0	..		48	0	..		..	
Blacksmiths ..	..	..	60	0	..		60	0	..		..	
Drillers	..	..	48	0	..		48	0	..		..	
Engine Drivers	..	..	55	0	..		54	0	..		..	
Fitters and Turners	..	..	60	0	..		60	0	..		..	
Labourers	..	..	45	0	..		45	0	..		..	
Painters (Liners and Scroll Work)	..	..	60	0	..		60	0	..		..	
Pattern Makers	..	..	66	0	..		66	0	..		..	
Sheet Iron Workers	..	..	54	0	..		54	0	..		..	
Strikers	..	..	48	0	..		48	0	..		..	
Wood Machinists	..	..	57	0	..		48	0	..		..	
Bedstead Makers.												
Chill Fitters	60	0	58	0	..		56	0	..		..	
Chippers	51	0	49	0	..		43	0	..		..	
Electroplaters	60	0	68	0	..		63	0	..		..	
Fitters-up	51	0	54	0	..		51	0	..		..	
Frame Setters	57	6	56	0	..		54	0	..		..	
Japanners and Others	50	0	48	0	..		43	0	..		..	
Lacquerers ..	55	0	51	0	..		48	0	..		..	
Polishers (Brass and Plate)..	52	6	57	0	..		48	0	..		..	
Boiler Makers ..	66	0	66	0	[1]66	0	72	0	72	0	60	0
Cycle and Motor Cycle Makers.												
Assemblers	48	0	45	0	..		..		..		..	
Cleaners	48	0	48	0	..		..		..		..	
Enamellers	52	0	49	0	..		..		..		..	
Filers	45	0	45	0	..		..		..		..	
Frame Builders or Braziers	52	0	50	0	..		..		..		..	
Repairers	52	0	48	0	..		..		..		..	
Wheel Builders	45	0	45	0	..		..		..		..	
Electrical Trades.												
Fitters	66	0	63	0	66	0	66	0	72	0	63	0
Lamp Attendants ..	51	0	54	0	48	0	48	0	..		..	
Mechanics	57	0	63	0	60	0	60	0	72	0	57	0
Wiremen	51	0	51	0	50	0	51	0	60	0	51	0
Engineers.												
Blacksmiths	72	0	66	0	[1]66	0	69	0	78	0	60	0
Borers and Slotters	60	0	60	0	[1]60	0	60 0 & 66	0	66	0	60	0
Brass Finishers	62	0	54	0	[1]66	0	60	0	72	0	51	0
Coppersmiths	72	0	66	0	[1]66	0	69	0	78	0	60	0
Drillers	50	0	48	0	[1]58	0	51 0 & 58	0	60	0	60	0
Fitters	70	0	66	0	[1]66	0	69	0	72	0	60	0
Millers	60	0	60	0	[1]60	0	66 & 69	0	66	0	60	0
Pattern Makers	74	0	72	0	[1]68	0	69	0	81	0	60	0
Planers	60	0	60	0	[1]60	0	60	0	66	0	60	0
Shapers	60	0	54 0 & 60	0	[1]60	0	60	0	66	0	60	0
Turners	70	0	66	0	[1]66	0	69	0	72	0	60	0

* See footnote * on page 29, also NOTE re hours of labour at head of that page.
(1) 44 hours per week.

GROUP II.—ENGINEERING, ETC.—(*Continued*).*

Occupations.	Sydney.		Melb.		Brisbane		Adelaide.		Perth.		Hobart.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Farriers.												
Floormen	60	0	50	0	45	0	54	0	60	0	40	0
Shoeingsmiths	66	0	57	6	45	0	60	0	66	0	45	0
Iron Moulders.												
Core Makers	66	0	56 0 &		[1]66	0	66	0	69 0 &		60	0
			68	0					72	0		
Furnacemen	60	0	54	0	[1]48	0	58	0	60	0	42	0
Labourers	48	0	48	0	[1]42	0	51	0	54	0	42	0
Machine Moulders ..	62	0	56	0	[1]60	0	60	0	66	0	60	0
Iron Workers' Assistants.												
Boilermakers' Helpers ..	48	0	50	0	[1]44	0	48	0	45 0 &		48	0
									54	0		
Engineers' Labourers ..	48	0	46	6	[1]40	0	48	0	45 0 &		42	0
									54	0		
Labourers	46	0	48	0	[1]40	0	48	0	45 0 to		42	0
									54	0		
Smiths' Strikers	48	0	48	0	[1]44	0	48	0	48 0 &		48	0
									54	0		
Sheet Metal Workers.												
Canister Makers ..	45 0 &		54	0	46	0	50	0	..		..	
	50	0										
Machinists	45 0 &		53	0	46	0	50	0	57	6	..	
	50	0										
Solderers	48	0	53	0	48	0	50	0	57	6	48	0
Tinsmiths	60	0	57	0	54	0	52	0	65	0	54	0

GROUP III.—FOOD, DRINK, TOBACCO, ETC.

Occupations.	Sydney.		Melb.		Brisbane		Adelaide.		Perth.		Hobart.	
Aerated Water Makers.												
Adult Workers ..	52	0	50	0	34	6	[10]48	0	54	0	42	0
Carters—1 Horse ..	[2]50	0	[3]45	0	[4]45	0	[6]48	0	55	0	42	0
„ 2 Horses ..	[2]55	0	[3]50	0	[4]50	0	[6]50	0	55	0	47	0
Bakers.												
Carters	[6]52	6	[7]48	0	[4]47	6	[8]48	0	[6]56	0	[6]42	0
Daymen	60	0	60	0	60	0	60	0	63	0	47	6
Jobbers (per hour) ..	1	6	1	6	1	6	1	3	1	6	1	3
Single Hands ..	65	0	65	0	60 0 &		60	0	68	0	60	0
					65	0						
Brewers.												
Bottle Packers ..	52	0	54	0	48	0	54	0	54	0	48	0
Bottlers and Washers ..	52	0	54	0	48	0	54	0	56	0	48	0
Cellarmen	54	0	54	0	48	0	54	0	60	0	48	0
Maltsters (Malt Hands) ..	54	0	54	0	42	0	57	0	60	0	48	0
Towermen	56	0	54	0	48	0	54	0	60	0	48	0
Butchers.												
General Hands ..	[9]54	0	[10]52	0	[5]52	6	[6]55	0	[10]60	0	42	0
Salters	[9]65	0	[10]52	0	[5]55	0	[6]55	0	[10]60	0	42	0
Shopmen	[9]55 0 to		[10]60	0	[5]52 6 to		[6]60	0	[10]60	0	51	0
	65	0			65	0						
Slaughtermen ..	80	0	70	0	65 to		60	0	70	0	52	6
					70	0						
Small Goodsmen ..	[9]65	0	[10]60	0	[5]60	0	[6]60	0	[10]60	0	51	0
Carters	[9]45	0	[8]45	0	[5]45	0&	48	0	[10]50 0&		[6]42	0
					50	0			60	0		

* See footnote * on page 29, also NOTE *re* hours of labour at head of that page.
(1) 44 hours per week.   (2) 55 hours per week.   (3) 46 hours (winter), 58 hours (summer) per week.   (4) 58 hours (winter), 60 hours (summer) per week.   (5) 52½ hours (winter), 54½ hours (summer) per week.   (6) 54 hours per week.   (7) 60 hours per week.   (8) 58 hours per week.   (9) 56 hours per week.   (10) 52 hours per week.

GROUP III.—FOOD, DRINK, ETC.—*Continued.**

Occupations.	Sydney.		Melb.		Brisbane		Adelaide.		Perth.		Hobart.	
	s.	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*
Cold Storage.												
Chamber Hands	54	0	60	0	60	0	..		..		..	
Ice Pullers and Stackers ..	48	0	56	0	..		..		..		..	
Confectioners.												
Chocolate Dippers	22	0	22	0	..		20	0	..		..	
Head Storemen	55	0	50	0	48	0	50	0	60	0	..	
Labourers	45	0	42	0	44	9	48	0	50	0	..	
Storemen	45	0	42	0	44	9	45	0	50	0	..	
Sugar, Glucose, Gelatine, Gum, Liquorice, and Chocolate Hands ..	60	0	54	0	46	8	54	0	60	0	45	0
Ham and Bacon Curers.												
First Hand	80	0	65	0	65	0	..		65	0	57	6
Scalders	57	6	57	6	56	0	..		54	0	52	6
Slaughtermen	75	0	65	0	65	0	..		70	0	55	0
Smokers	57	6	48	0	57	6	..		54	0	52	6
Jam and Preserve Workers.												
Males	51	0	48	0	48	0	45	0	..		42	0
Solderers	50	0	48	0	50	0	48	0	..		45	0
Females	20	0	23 0 & 30	0	20	0	21	0	..		20 0 & 24	0
Milk Carters	[1]46	0	[2]45	0	[3]45	0	[4]48	0	[4]56	0	[5]42	0
Millers												
Engine Drivers	52	6	48	0	..		60	0	55	0	47 6 & 60	0
Millers	60	0	55	0	..		60	0	68	0	52	6
Packermen	48	0	48	0	..		48	0	45 0 to 54	0	42	0
Storemen	48	0	48	0	..		48	0	51	0	50	0
Pastrycooks.												
First Hand	60	0	56	0	[6]65	0	60	0	65	0	60	0
Second Hand	..		50	0	[6]55	0	..		60	0	47	6
Tinned Meat Workers.												
Jokermen and Cappers ..	60	0	..		63	6	..		..		..	
Lacquer Hands	60	0	..		..		..		..		..	
Packers	48	0	..		51	6	..		..		..	
Scald Hands	48	0	..		57	6	..		..		..	
Seamers	60	0	..		72	6	..		..		..	
Table Hands, Fillers & Podgers	45	0	..		51	6	..		..		..	

GROUP IV.—CLOTHING, HATS, BOOTS, ETC.

	Sydney.		Melb.		Brisbane		Adelaide.		Perth.		Hobart.	
Bootmakers.												
Bootmakers	54	0	54	0	52	0	54	0	54	0	52	0
Bootmakers	25	6	25 6 & 32	6	21	0	20	0	32	0	22	6
Dressmakers	..		21	6	22	0	16	0	..		20	0

GROUP IV.—CLOTHING, ETC.—(Continued).*

Occupations	Sydney.	Melb.	Brisbane	Adelaide.	Perth.	Hobart.
	s. d.	s. d.	s. d.	s. d.	s. d.	s.
Hatters.						
Felt Hatters	70 0	65 0	..	†	..	..
Straw, Blockers	[1]55 7	43 0	..	..	..	..
Finishers	[1]25 0	18 0	..	..	..	..
Machinists	[1]30 0	32 6	..	..	..	..
Stiffeners	[1]55 7	43 0	..	..	..	..
Milliners.	..	22 6	22 5	16 6	..	15 0
Shirt Makers	..	22 6	19 8	16 0	..	15 0
Tailors.						
Machinists	28 0	22 6 to 25 6	24 0	20 0	40 0 & 45 0	†
Pressers	60 0	55 0	50 0	55 0	60 0	..
Tailors	55 0	60 0	50 0	60 0	70 0	..
Tailoresses	26 0 & 32 6	22 6 to 26 0	22 6 & 24 0	20 0	35 0 & 45 0	..
Textile Workers.						
Dye-house Workers	45 6	42 0	..	..	..	..
Foremen	65 0	60 0	..	..	..	..
General Labourers	45 0	42 0	..	..	..	..
Pattern Weavers	48 0	54 0	..	..	..	..
Scourers	45 0	42 0	..	..	..	..
Spinners	45 0	42 0	..	..	..	..
Turners	56 0	52 0	..	..	..	..
Warpers—*Female*	30 0	28 0	..	..	..	..
Male	45 0	42 0	..	..	..	..
Weavers—Female	30 0	30 0	..	..	..	..
Willy-house Labourers	45 0	42 0	..	..	..	..

GROUP V.—BOOKS, PRINTING, BINDING, ETC.

Occupations	Sydney.	Melb.	Brisbane	Adelaide.	Perth.	Hobart.
Bookbinders.						
Bookbinders	62 6	58 0	56 0	56 0	65 0	60 0
Feeders, Sewers	23 0 & 25 0	21 0 & 23 0	18 6	18 0 & 22 0	..	17 6
Paper Rulers	62 6	58 0	56 0	56 0	65 0	60 0
Engravers—Process.						
Halftone Etchers	[2]63 0	70 0	..	..	..	..
Line Etchers	[2]56 0	65 0	..	..	..	..
Operators	[2]63 0	65 0	..	..	..	..
Printers	[2]56 0	50 0	..	..	..	..
Routers	[2]45 0	55 0	..	..	..	..
Lithographers.						
Printers	62 6	60 0	60 0	58 0	..	..
Rotary Machinists	67 6	67 6	60 0	56 0	..	..
Printers—Daily Newspapers.						
Compositors—Day	63 0 to 76 0	[3]73 6	[4]73 4	76 0	67 6	..
Night	80 0 to 88 0	[3]77 0	[4]73 4	[5]80 0	[5]80 0	63 0
Linotype Operators—Day	†	†	[4]84 0	72 0	[3]80 0	†
Night	†	†	[4]84 0	†	[3]90 0	†
Machinists—1st Hand—Day	70 0	[1]69 0	[4]65 0	70 0	65 0	..
,, ,, Night	80 0	[4]77 0	[4]65 0	70 0	[4]65 0	65 0
Publishers	52 & 6 / 55 0	[4]46 & 0 / 58 8	[4]50 & 0 / 55 0	57 0	60 0	55 0
Readers—Day	70 0	[3]71 9	[4]65 0	76 0	70 0	60 0
,, Night	90 0	[3]75 3	[4]65 0	80 0	[3]90 0	70 0
Stereotypers (1st Class), Day	60 0	[1]69 0	[4]75 0	58 0	65 0	60 0
,, ,, Night	70 0	[4]77 0	[4]75 0	64 0	[4]70 0	70 0

* See footnote * on page 29, also NOTE *re* hours of labour at head of that page. † Piece Rates. (1) 46 hours per week. (2) 44½ hours per week. (3) 42 hours per week. (4) 44 hours per week. (5) 45 hours per week.

GROUP V.—BOOKS, PRINTING, ETC.—(Continued).*

Occupations.	Sydney.		Melb.		Brisbane		Adelaide.		Perth.		Hobart.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Printing—Jobbing Offices, etc.												
Compositors	65	0	60	0	56	0	60	0	65	0	60	0
Linotype Operators ..	[1]67	6	[2]70	0	[3]62	6	[1]72	0	[2]80	0	†	
Machinists	52	6 &	56	0 &	47	& 6	56	0	65	0	60	0
	60	0	60	0	56	0						
Monotype Operators ..	[1]60	0	[2]70	0	[3]56	0	[1]72	0	[2]70	0	..	
Readers	65	0	64	0	56	0	60	0	65	0	60	0
Stereotypers	60	0	60	0	56	0	60	0	65	0	60	0

GROUP VI.—OTHER MANUFACTURES.

Occupations.	Sydney.		Melb.		Brisbane		Adelaide.		Perth.		Hobart.	
Brickmakers.												
Brick Burners	[4]66	6	[5]67	6	[4]56	0	[5]60	0	60	0	49	6
Brick Drawers	58	0	60	0	46	0	54	0	..		49	6
Brick Setters	58	0	56	0	44	0	56	0	64	0	54	0
Labourers	48	0	48	0	40	0	48	0	56	0	48	0
Machinemen	54	0	[6]55	3	[7]53	8	52	0	62	0	48	0
Pipe Drawers	56	0	54	0	47	0	60	0	..		..	
„ Moulders	56	0	48	0	48	0	54	0	..		..	
„ Setters	56	0	52	6	44	0	54	0	..		..	
Broom, Brush Makers.												
Bench Drawing Work ..	..		21	0	..		21	0	..		..	
Boring Machinists ..	54	0	60	0	..		60	0	..		..	
Drawing Bass Brooms ..	..		21	0	..		21	0	..		..	
Drawing Bass Brooms ..	54	0	52	6	..		52	6	..		..	
Finishers	..		60	0	..		60	0	..		..	
Hair and Bass Pan Workers	54	0	55	0	..		55	0	..		..	
Paint Brush Makers ..	..		67	6	..		67	6	..		..	
Candle Makers.												
Acidifiers	50	0	53	0	48	0	51	0	..		..	
General Hands	48	0	46	6	40	0	45	0	..		..	
Moulders	50	0	50	0	45	0	47	6	..		..	
Stillmen	55	0	53	0	48	0	51	0	..		..	
Coach Makers.												
Body Makers	66	0	60	0	[8]50	11	60	0	63	0	60	0
Painters	66	0	60	0	[8]50	11	60	0	63	0	60	0
Smiths	66	0	60	0	[8]50	11	60	0	63	0	60	0
Trimmers	66	0	60	0	[8]50	11	60	0	63	0	60	0
Wheelwrights	66	0	60	0	[8]50	11	60	0	63	0	60	0
Gas Employees.												
Coke Trimmers	54	0	52	6	48	0	50	0	54	0	48	0
Engine Drivers	60	0	60	0	54	0	60	0	66	0	54	0
Gas Fitters	66	0	63	0	60	0	54	0	78	0	60	0
Labourers	48	0	48	0	45	0	48	0	54	0	42	0
Stokers	60	0	61	6	60	0	60	0	66	0 &	54	0
									73	6		
Glass Foundry.												
Assistant Firemen	[5]42	0	[5]42	0	..		[5]48	0	..		..	
Bottle Stoppers	50	0	†		..		48	0	..		..	
Firemen	[5]70	0	[5]52	6	..		[5]60	0	..		..	
Labourers .. '	36	0	36	0	..		48	0	..		..	
Packers	36	0	†		..		48	0	..		..	
Sorters	39	0	42	0	..		48	0	..		..	

* See footnote * on page 29, also NOTE *re* hours of labour at head of that page.   † Piece Rates.   (1) 45 hours per week.   (2) 42 hours per week.   (3) 44 hours per week. (4) 56 hours per week.   (5) 60 hours per week.   (6) 51 hours per week.   (7) 52 hours per week.   (8) 47 hours per week.

GROUP VI.—OTHER MANUFACTURES—(*Continued*).*

Occupations.	Sydney.		Melb.		Brisbane		Adelaide.		Perth.		Hobart.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Glass, Plate, Sheet, and Ornamental.												
Bevellers	58	0	48	0	..		60	0	..		60	0
Cutters and Glaziers	56	0	50	0	..		48	0	..		..	
Lead Light Glazier	60	0	50	0	..		56	0	..		..	
Silverers	58	0	48	0	..		60	0	..		..	
Jewellers.												
Chain Makers	60	0	55	0	60	0	60	0	66	0	..	
Engravers	65	0	60	0	60	0	60	0	66	0	60	0
Mounters	60	0	55	0	60	0	60	0	66	0	60	0
Setters	65	0	60	0	60	0	60	0	66	0	60	0
Watch and Clockmakers	65	0	[1]70	0	60	0	60	0	66	0	60	0
Masons, Marble and Stone.												
Machine Hands	57	0	64	0	..		..		..		..	
Masons	66	0	[2]58	8	[2]60	6	60	0	..		..	
Polishers	57	0	[3]48	9 &	..		..		..		..	
			56	0								
Monumental Workers.												
Carvers	72	0	[2]69	8	[2]58	8	70	0	78	0	66	0
Fixers	66	0	[2]64	2	[2]58	8	60	0	72	0	66	0
Labourers	48	0	[2]50	0	[2]44	0	48	0	54	0	48	0
Letter Cutters	72	0	[2]66	0	[2]58	8	66	0	78	0	66	0
Masons	66	0	[2]58	8	[2]58	8	70	0	78	0	66	0
Saddlers.												
Females	24	0	24	0	24	0	30	0	25	0	..	
Harness Makers	54	0	54	0	54	0	54	0	50	0	50	0
Machinists	54	0	54	0	54	0	54	0	50	0	50	0
Saddlers	54	0	54	0	54	0	54	0	50	0	50	0
Sailmakers	60	0	60	0	..		..		..		..	
Ship Dockers and Painters.												
Dockers	51	0	48	0	[2]47	8	..		..		..	
Painters	63	0	48	0	[2]47	8	..		..		..	
Shipwrights.												
New Work	72	0	[2]66	0	[2]62	4	72	0	..		64	0
Old Work	76	0	[2]69	8	[2]69	8	72	0	..		64	0
Soap and Soda Makers.												
General Hands	48	0	45	0	42	0	45	0	..		..	
Mixer	48	0	48	0	..		..		..		..	
Soap Maker	60	0	62	6	60	0	60	0	..		..	
,, ,, (Assistant)	50	0	55	0	55	0	55	0	..		..	
Tanners.												
Beamsmen	47	0	54	0	50	0	47	0	54	0	55	0
Curriers	50	0	57	0	52	6	50	0	57	0	60	0
Machinists, Fleshing	47	0	54	0	50	0	47	0	54	0	55	0
,, Scudding	44	0	49	0	48	0	42	0	50	0	49	0
,, Shaving	45	0	50	0	50	0	50	0	57	0	52	0
,, Splitting	50	0	57	0	52	6	50	0	57	0	55	0
,, Unhairing	44	0	49	0	48	0	42	0	50	0	52	0
,, Whitening	45	0	57	0	48	0	50	0	57	0	57	0
Rollers and Strikers	45	0	50	0	50	0	43	0	50	0	52	0

* See footnote * on page 29, also NOTE *re* hours of labour at head of that page.
(1) 46½ hours per week.　(2) 44 hours per week.　(3) 45 hours per week.

Group VI.—Other Manufactures—(Continued).*

Occupations.	Sydney.		Melb.		Brisbane		Adelaide.		Perth.		Hobart.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Tent Makers.												
Cutters	50	0	50	0	..		..		..		..	
Hand Sewers	60	0	60	0	..		..		..		..	
Machinists	52	6	52	6	..		..		..		..	
Tent Makers	60	0	60	0	..		..		..		..	
Wickerworkers	55	0	57	6	¹60	6	54	0	..		52	6

Group VII.—Building.

(Note.— The hours of labour in Melbourne and Brisbane are 44 per week.)

	Sydney.		Melb.		Brisbane		Adelaide.		Perth.		Hobart.	
Bricklayers	72	0	71	6	66	0	72	0	78	0	72	0
Carpenters	66	0	69	8	60	6	66	0	69	0	66	0
Labourers.												
Bricklayers' Labourers ..	57	6	60	0	52	0	60	0	60	0	48	0
Carpenters' ,,	54	0	57	0	48	0	54	0	54	0	45	0
Concrete Workers	54	0	54	0	48	0	60	0	60	0	48	0
Earth Excavators	54	0	54	0	48	0	54	0	54	0	48	0
Gear Workers	60	0	63	0	56	0	66	0	66	0	48	0
Masons' Labourers ..	57	6	60	0	52	0	60	0	60	0	48	0
Plasterers' ,, ..	57	6	60	0	52	0	60	0	60	0	48	0
Scaffold Hands	60	0	63	0	56	0	66	0	66	0	48	0
Lathers	72	0	72	0	60	6	72	0	78	0	68	0
Masons	¹73	4	70	0	60	6	72	0	78	0	66	0
Metal Ceiling Fixers	60	0	60	0	..		..		..		..	
Painters.												
Glaziers	64	0	60	6	55	0	60	0	66	0	54	0
Painters	64	0	60	6	55	0	60	0	66	0	54	0
Paperhangers	64	0	60	6	55	0	60	0	66	0	54	0
Signwriters	66	0	60	6	55	0	60	0	72	0	60	0
Plasterers	66	0	78 84	0&0	60	6	72	0	78	0	68	0
Plumbers.												
Galvanized Iron Workers	66	0	66	0	66	0	66	0	78	0	57	0
Gasfitters	66	0	66	0	66	0	66	0	78	0	57	0
Plumbers	66	0	66	0	66	0	66	0	78	0	57	0
Slaters	72	0	71	6	60	6	72	0	78	0	66	0
Tilers	72	0	71	6	60	6	72	0	78	0	66	0
Tuckpointers	72	0	64	2	60	6	72	0	78	0	..	

Group VIII.—Mining.‡

	Sydney.		Melb.		Brisbane		Adelaide.		Perth.		Hobart.	
Coal Mines.												
Bracemen	54 to 63	0 0	50	0	51	0	..		..		..	
Deputies	60 0 to 73	6	60 0 to 72	0	63	0	..		80 0 to 90	0	48 0 to 57	0

* See footnote * on page 29, also NOTE *re* hours of labour at head of that page.   ‡ The rates specified are representative of the rates ruling in the chief mining districts throughout each State. There is no coal mining in South Australia.   (1) 44 hours per week.

GROUP VIII.—MINING—(*Continued*).*

Occupations.	Sydney.	Melb.	Brisbane	Adelaide.	Perth.	Hobart.
	s.　d.	s.　d.	s.　d.	s.　d.	s.　d.	s.　d.
Coal Mines—(*Contd.*).						
Engine Drivers—						
Winding	66　0	60　0	66　0	..	72　0 to 80　0	50　0 to 57　0
Other	54　0 to 60　0	54　0	54　0 to 66　0	..	..	40　0 to 48　0
Labourers	48　0	45　0 & 49　0	45　0	..	61　6	39　0 to 45　0
Machinemen	†	63　0 †	60　0 †	..	81　6 to 92　6	..
Miners	†	†	†	..	83　6 to 87　6	48　0 to 60　0
Platmen or Banksmen	50　0 to 60　0	49　0	48　0	..	68　6	36　0 to 45　0
Shaft Sinkers	..	66　0	60　0 & 66　0	..	..	..
Shiftmen	54　6 to 70　0	..	60　0	..	83　6	42　0 to 51　0
Shot Firers	54　0 to 67　6	..	63　0	..	..	..
Shovellers	48　0	48　0	48　0	..	72　6	..
Timbermen	..	60　0	60　0	..	..	..
Wheelers	48　0 to 54　6	50　0	48　0	..	70　6 to 78　6	36　0 to 42　0
Gold, Copper, Silver, etc., Mines						
Battery Feeders	45　0 to 55　6	32　0 to 40　0	..	45　0 to 51　0	60　0 to 70　0	48　0
Bracemen	48　0 to 63　0	42　0 to 50　0	45　0 to 72　0	48　0	65　0 to 80　0	45　0
Engine Drivers—Stationary	54　0 & 60　0	54　0	54　0 to 66　0	51　0 to 60　0	78　0 to 90　0	48　0 to 54　0
,,　　,,　Winding	63　0	60　0	60　0 to 87　0	60　0 to 75　0	66　0 to 96　0	50　0 to 60　0
Firemen	54　0	45　0	54　0	48　0 to 54　0	60　0 to 72　0	45　0
Labourers	51　0 to 57　0	42　0 to 50　0	45　0 to 69　0	48　0	60　0 to 72　0	42　0 & 45　0
Miners	57　0 to 66　0	48　0 to 54　0	54　0 to 78　0	55　0	70　0 to 90　0	45　0 to 51　0
,,　Machine	63　0	56　0 to 66　0	60　0 to 87　0	57　0 to 60　0	75　0 to 90　0	50　0
,,　Wet	72　0	56　6 to 66　0	..	..	..	50　0
Platmen	51　0 to 60　0	44　0 to 50　0	48　0 to 78　0	48　0	65　0 to 80　0	45　0 to 51　0
Shaft Sinking	59　0 & 66　0	54　0 to 62　0	60　0 to 87　0	..	70　0 to 93　0	50　0
,,　　,,　Wet	72　0	56　6 to 66　0	..	..	..	55　0
Shift Bosses	60　0 to 72　0	56　0 to 66　0	..	..	90　0 to 120　0	60　0 to 75　0
Timbermen	63　0 to 72　0	52　0 to 60　0	60　0 to 87　0	60　0	72　0 to 90　0	50　0 to 56　0

* See footnote ‡ on preceding page; also footnote * on page 29, and NOTE *re* hours of labour at head of that page.　　† Piece Rates.

Group IX.—Railway and Tramway Services.*

Occupations.	Sydney.	Melb.	Brisbane	Adelaide.	Perth.	Hobart.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Railway Employees.*						
Engine Drivers (Loco.) ..	60 6 to 90 0	69 0 to 87 0	57 0 to 87 0	72 0 to 90 0	72 0 to 90 0	60 0 to 72 0
Firemen	54 0 to 60 0	48 0 to 57 0	45 0 to 60 0	54 0 to 66 0	54 0 to 66 0	45 0 to 54 0
Guards	51 0 to 66 0	48 0 to 72 0	49 6 to 84 0	51 0 to 69 0	60 0 to 75 0	48 0 to 72 0
Porters	48 0 to 54 0	42 0 to 51 0	45 0 to 51 0	48 0 to 51 0	54 0 to 60 0	39 0 to 48 0
Shunters	51 0 to 72 0	48 0 to 66 0	48 0 to 72 0	51 0 to 57 0	57 0 to 75 0	48 0 to 57 0
Signalmen	54 0 to 78 0	51 0 to 75 0	48 0 to 67 6	51 0 to 66 0	54 0 to 81 0	45 0 to 57 0
Tramway (Electric) Employees†						
Car Washers or Cleaners ..	51 0	48 0 & 51 0	51 0	51 0	48 0 to ‡57 0	48 0
Conductors	54 0	57 0	57 0	57 0	48 0 to 60 0	51 0
Firemen (four fires) ..	..	60 0	60 0	60 0	..	..
,, (less than four fires)		54 0	57 0	57 0		
Horse Drivers	..	48 0 & 51 0	51 0	48 0	55 0	48 0
Labourers	45 0 & 48 0	48 0 & 51 0	48 0	48 0	48 0 & 54 0	48 0
Lampmen, Trimmers ..	45 0	51 0	51 0	51 0	..	..
Maintenance men, Fettlers	48 0	48 0 & 51 0	54 0	54 0	48 0 to ‡58 0	48 0
Motormen	60 0	57 0	57 0	57 0	48 0 to 60 0	57 0
Night Watchmen	..	48 0	48 0	48 0	48 0	50 0
Overhead Wiremen (Leading)	..	63 0	63 0	60 0	..	..
,, ,, (Other)	..	54 0 & 57 0	54 0 & 60 0	54 0	..	48 0
Pitmen	60 0	60 0	57 0	57 0	48 0 to ‡63 0	..
Signalmen	60 0 to 66 0	60 0	60 0	60 0	..	..
Track Cleaners	45 0	48 0 & 51 0	51 0	51 0	48 to 0 ‡58 0	48 0
Tower Wagon Drivers ..	50 0 & 60 0	48 0 & 51 0	..	48 0 & 54 0	..	..
Trimmers or Fuel Men ..	48 0	..	51 0	51 0	48 0	..

Group X.—Other Land Transport.

Carriers.	Sydney.	Melb.	Brisbane	Adelaide.	Perth.	Hobart.
One Horse	[1]50 0	[2]45 0	[3]47 6	[4]48 0	50 0	[4]42 0
Two Horses	[1]55 0	[2]50 0	[3]52 0	[1]50 0	55 0	[4]47 0

* The hours of labour for Railway Employees are 48 per week (in N.S.W. 96 per fortnight), except in the following cases:—N.S.W.—Porters, 108 to 120 hours per fortnight; Victoria—Porters, 48 to 60 hours per week; South Australia—Porters and Signalmen, 48 to 57 hours per week; and Tasmania—Guards and Shunters, 54, and Porters, 48 to 54 hours per week. Owing to the difference in the classification of grades of Railway Employees in the various States, only minimum and maximum rates are quoted, excluding those for Foremen. † For New South Wales the Wages are determined by a State Award. For Victoria, Western Australia and Tasmania, agreements have been made under Commonwealth Arbitration Act. For Queensland and South Australia, Awards have been made by the Commonwealth Court of Conciliation and Arbitration. By Commonwealth agreements the wages for Gripmen and Conductors in Melbourne have been fixed as follows—Conductors, 55s. and 57s. per week; Gripmen, 55s. and 57s. per week. ‡ The maximum rate applies to night work.
(1) 56½ hours per week. (2) 58 hours per week. (3) 58 hours (winter) 60 hours (summer) per week. (4) 54 hours per week.

GROUP XI.—SHIPPING, WHARF LABOUR, ETC.||

Occupations.	Sydney.	Melb.	Brisbane	Adelaide.	Perth.	Hobart.
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
Marine Engineers.*	LOWEST CLASS. *Under* 100 *N.H.P.*			HIGHEST CLASS. 600 or *more N.H.P.*		
	s.			*s.*		
Chief .. per month	440			680		
Second .. ,,	350			440		
Third .. ,,	310			360		
Fourth .. ,,	..			300		
5th, 6th, 7th, 8th ,,	..			240		
	INTERSTATE PASSENGER VESSELS.			INTERSTATE CARGO VESSELS.		
	Lowest Class, 250 *tons&under.*	*Highest Class, over* 4,000 *tons.*		*Lowest Class,* 250 *tons&under.*	*Highest Class, over* 4,000 *tons.*	
Merchant Service.†						
Masters	420*s.*	860*s.*		400*s.*	720*s.*	
Officers, Chief	300*s.*	400*s.*		280*s.*	260*s.*	
,, Second	240*s.*	340*s.*		240*s.*	300*s.*	
,, Third	..	280*s.*		..	360*s.*	
,, Fourth and Fifth	..	200*s.*		..	200*s.*	
Seamen.						
A.B.'s per month	..	..	..	..	..	160*s.*
Boatswains .. ,,	..	..	..	..	..	180*s.*
Donkeymen .. ,,	..	..	..	..	..	220*s.*
Firemen .. ,,	..	..	..	..	..	200*s.*
Greasers .. ,,	..	..	..	..	..	200*s.*
Trimmers .. ,,	..	..	..	..	..	160*s.*
Waterside Workers.						
Coal Lumpers per hour	1 7½	1 5	1 7½	1 6	1 7	1 5
Wharf Labourers ,,	1 6	1 5	1 5	1 5	1 6	1 5

GROUP XII.—AGRICULTURAL, PASTORAL, ETC.

Agricultural Workers, Etc.	Minimum rates in the agricultural industries have not generally been fixed by industrial tribunals. The following particulars relate to weekly predominant or most frequent rates for adult workers. General farm hands, 20*s.* to 25*s.*‡—Ploughmen, 20*s.* to 30*s.*‡; Harvesters, 30*s.* to 40*s.*; Milkers, 20*s.*‡ ; Threshers, 30*s.* to 40*s.*					
Fruit Harvesters	.. .. 1*s.* per hour					
Chaffcutters	.. 1*s.* to 1*s.* 1½*d.* per hour.					
Gardeners.						
Gardeners	48 0	48 0	48 0	51 0	54 0	48 0
,, Labourers	45 0	45 0	42 0	48 0	48 0	42 0
General Nursery Hands ..	48 0	48 0	48 0	51 0	60 0	48 0
Nursery Labourers	45 0	42 0	42 0	48 0	48 0	42 0
Pastoral Workers.§						
Shearers per 100	24 0	24 0	24 0	24 0	25 0	24 0
Shed Hands	37 6‡	37 6‡	37 6‡	37 6‡	46 0‡	37 6‡
Cooks, per man per week	4 0	4 0	4 0	4 0	6 0	50 0¶

* Minimum rates under the Commonwealth Award are classified according to nominal horse-power of vessel; the lowest and highest classes are here specified. † Minimum rates under the Commonwealth Award are classified for Interstate vessels, and for vessels within a State according to tonnage; the lowest and highest classes for Interstate passenger and cargo vessels are here given. § The rates specified for New South Wales, Victoria, Queensland, and South Australia are the minimum rates under the Award of the Commonwealth Court of Conciliation and Arbitration; for Western Australia and Tasmania the rates are those arranged under industrial agreements. ‡ And found. ¶ Per week. || See footnote * on page 29, also NOTE at head of that page.

GROUP XIII.—DOMESTIC, HOTELS, ETC.‡

Occupations.	Sydney.	Melb.	Brisbane	Adelaide. §	Perth.	Hobart.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Hairdressers	[1]55 0	[2]55 0	[3]55 0	[2]55 0	[2]60 0	..
Hotel, Restaurant Workers.						
Barmaids	[1]20 0*	[4]37 6	[5]40 0	..	[6]65 0	20 0†
Barmen	[1]30 0*	[1]50 0	45 0& / [7]50 0	..	[6]65 0	25 0 to 40 0
Billiard Markers ..	[1]25 0*	[1]42 6	[7]40 0		40 0	15 0 to 20 0†
Handy Men	[8]20 0*	[1]35 0	[7]37 6	..	25 0†	10 0 to 15 0†
Housemaids	[8]13 0*	[4]30 0	[7]15 0†	..	22 6†	11 0 to 15 0†
Laundresses	[8]20 0*	[4]35 0	[7]20 0†	..	25 0†	15 0†
Porters	[7]25 0 to 32 6*	[1]37 6 to 42 6	[7]40 0	..	30 0†	15 0 to 20 0†

GROUP XIV.—MISCELLANEOUS AND GENERAL LABOUR.

Occupations.	Sydney.	Melb.	Brisbane	Adelaide.	Perth.	Hobart.
Engine Drivers.						
Stationary	48 0 to 66 0	48 0 to 66 0	54 0 to 66 0	54 0 to 66 0	54 0 to 72 0	45 0 to 60 0
„						
Firemen—First Class ..	54 0	54 0	51 0	54 0	57 6	48 0
Second Class ..	51 0	48 0	48 0	48 0	48 0	45 0
Municipal Employees.						
Labourers	54 0	51 0	48 0	48 0	54 0	42 0
Street Sweepers (Scavengers)	51 6 & 54 0	51 0	45 0	48 0	54 0	39 0
Shop Assistants.						
Boots—Males	[9]52 6	[9]50 0	[9]55 0	[9]57 6	45 0 to 55 0	[2]37 6
Females ..	[9]30 0	[9]27 6	[9]30 0	[9]27 6	20 0 to 30 0	[2]15 0
Drapers—Males	[9]52 6	58 0	[9]55 0	[9]57 6	45 0 to 55 0	[2]40 0
Females ..	[9]30 0	30 0	[9]30 0	[9]27 6	20 0 to 30 0	[2]15 0 to 20 0
Furniture	..	60 0	[9]55 0	[9]55 0 to 57 6	45 0 to 55 0	..
Grocers	[3]52 6	[2]50 0	[9]50 0	[10]55 0	45 0 to 55 0	[2]35 0
Hardware	..	[9]60 0	[9]55 0	[9]55 0 to 57 6	45 0 to 55 0	[2]40 0
Men's Clothing	[9]52 6	60 0	[9]55 0	[9]57 6	45 0 to 55 0	..
Storemen, Packers, Etc. (Shops).						
Night Watchmen	[11]50 0	[11]54 0	[11]40 0	[11]56 0	[11]50 0	[11]40 0
Packers	[3]51 0	35 0 to 50 0	47 6	48 0	[2]50 0	..
Storemen	[3]48 0	40 0 to 50 0	47 6	48 0	[2]50 0	[2]50 0

* When board not provided the rates are 10s. per week higher.   † With board and lodging.   ‡ See footnote * on page 29, also NOTE *re* hours of labour at head of that page. § The determination fixing the rates for hotel and restaurant workers has been quashed.

(1) 58 hours per week.   (2) 52 hours per week.   (3) 53 hours per week.   (4) 56 hours per week.   (5) 55 hours per week.   (6) 54 hours per week.   (7) 60 hours per week.   (8) 63 hours per week.   (9) 50 hours per week.   (10) 51 hours per week. (11) 72 hours per week.

3. **Relative Wages and Wage Index-Numbers in Different Industries and States, 1913.**—The particulars given in the preceding table furnish the necessary data for the computation of relative wages in different industries and States. Index-numbers have been given in the preceding section of this report shewing variations in wages from year to year in individual States and industrial groups. These index-numbers, however, afford no information as to relative wages in different States or industries, since the average wage in the year 1911 in each State or industry, as the case may be, is made equal to 1000, in order to shew separately the extent of the variations in *individual* States and industries. In the following tables the arithmetic average of the rates of wages given above has been computed for each industry and State, and these averages have been weighted in the manner indicated on pages 23 and 24.

(i.) *Weighted Average Rates of Wages Payable to Journeymen or Male Adult Workers in each State,* 1913.—The following table shews for the year 1913 the weighted average weekly rate of wage payable to journeymen or male adult workers for a full week's work in each State and the Commonwealth. These results, being based on the nominal rates given in the preceding table (omitting those for females), are subject to the qualifications and limitations expressed in paragraph 2 hereof. Taking the average for the whole Commonwealth as the base (= 1000), index-numbers for each State are also shewn.

The figures given in the following table are exclusive of any rates in Groups XI. (Shipping, etc.) and XII. (Agricultural, Pastoral, etc.), sufficient data for the satisfactory computation of an average in these two groups not being available.

Weighted Average Nominal Weekly Rates of Wages payable to Journeymen or Male Adult Workers for a Full Week's Work, and Wage Index-Numbers in each State and Commonwealth, 1913.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	C'wth.
Number of Occupations included	312	324	251	263	216	203	1,569
Weighted Average Weekly Rates of Wages	s. d. 55 3	s. d. 54 4	s. d. 54 6	s. d. 55 3	s. d. 64 1	s. d. 48 6	s. d. 55 4*
Index-Numbers	998	982	984	998	1,158	876	**1,000***

* Weighted Average.

The results given in the above table must be taken subject to the qualifications (a) that they are based only on a limited number of rates of wages, and (b) that the list of occupations to which the wages refer are not by any means uniform in the several States. Any results, in order to be representative for each State, must necessarily be subject to the latter qualification, inasmuch as the industrial occupations of the people are not by any means indentical in the several States. A

completely satisfactory record of relative rates of wages in the several States can be obtained only by means of an industrial census. The above results are, however, based on wages in a considerable number of important industries, and serve to indicate on general lines with a considerable degree of precision the relative conditions in the several States.

The results shew that (nominal) rates of wages are highest in Western Australia, followed in the order named by New South Wales and South Australia (equal), Queensland and Victoria (practically equal), and Tasmania.

(ii.) *Weighted Average Rates of Wages Payable to Journeymen or Male Adult Workers in each Industrial Group,* 1913.—The following table gives similar particulars in regard to the several industrial groups and to the weighted average for all groups combined. In computing the index-numbers the weighted average is taken as base (= 1000). The results are subject to similar qualifications as those expressed above and in paragraph 2 hereof.

Weighted Average Weekly Rates of Wages payable to Journeymen or Adult Male Workers for a full Week's Work, and Wage Index-Numbers in each Industrial Group, 1913.

Industrial Groups.	No. of Rates Included.	Weighted Average Weekly Wage (for Full Week's Work).		Index-Numbers.
		s.	*d.*	
I. Wood, Furniture, etc. ..	124	58	0	1,048
II. Engineering, Metal Works, etc.	235	56	6	1,021
III. Food, Drink, etc. ..	206	54	1	977
IV. Clothing, Boots, etc. ..	40	51	6	931
V. Books, Printing, etc. ..	121	65	6	1,183
VI. Other Manufacturing ..	341	55	3	998
VII. Building	139	62	10	1,135
VIII. Mining, Quarries, etc. ..	125	60	10	1,099
IX. Railways Services, etc.	115	55	11	1,010
X. Other Land Transport	12	47	3	854
XI. Shipping, etc.* ..	..	..		..
XII. Agricultural, etc.* ..	..	..		..
XIII. Hotels, etc.	29	42	9	772
XIV. Miscellaneous	82	52	10	954
All Groups†	1,569	55	4	1,000

* Insufficient data available for the satisfactory computation of an average.

† Weighted Average, exclusive of Groups XI. and XII.

The above figures shew that the highest average wage is that paid in Group V., Printing, etc. (65s. 6d. per week, or 18.3 per cent. above the weighted average for all groups). The rates of wages range from 65s. 6d. per week down to 42s. 9d. per week, the lowest being in Group XIII., Hotels, etc., which is nearly 22 per cent. below the average for all groups.

4. **Relative Amounts of Wages payable in the several States, 1891 to 1912.**—In several of the tables given in the preceding section, shewing the course of wages in individual States or industrial groups over a series of years, attention is drawn to the fact that the results are not directly comparable either vertically or horizontally. The results given in paragraph 3 furnish the necessary supplementary data for the computation of tabular results which are fully comparable both horizontally and vertically. The following table shews the average amount of nominal wages payable to journeymen or male adult workers in each State from 1891 to 1912, corresponding to £1 payable on the average in 1911 in the whole Commonwealth.

Table shewing the Average Amount of (Nominal) Rates of Wages payable to Journeymen or Male Adult Workers in each State, from 1891 to 1912, corresponding to £1 payable on the Average in the whole Commonwealth in 1911.

Particulars.	N.S.W.		Vic.		Q'land.		S.A.		W.A.		Tas.		C'wth.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
1891	17	1	15	8	18	7	16	3	20	10	14	9	16	11
1896	16	3	15	1	17	10	16	3	21	4	13	6	16	4
1901	17	0	15	10	18	5	16	5	21	6	14	2	17	0
1906	17	7	16	0	18	7	16	8	21	6	14	9	17	4
1907	18	0	17	0	18	8	17	2	21	6	14	3	17	10
1908	18	1	17	4	18	11	17	4	21	8	14	3	18	0
1909	18	8	17	8	19	4	18	1	21	10	14	5	18	5
1910	19	2	18	4	19	8	19	0	22	10	15	3	19	1
1911	19	10	19	7	20	5	20	3	23	6	15	9	*20	0
1912	21	0	20	8	20	8	21	0	24	4	18	5	21	0

* Basis of table.

The figures given in the above table are fully comparable with each other; thus it appears that for every £1 payable on the average in the Commonwealth in 1911, the amount payable in New South Wales in 1891 was 17s. 1d., or in Western Australia in the same year was 20s. 10d. It may be seen that in each of the years specified the rates payable were highest in Western Australia and lowest in Tasmania. In each of the States of New South Wales, Victoria, and Queensland the rates shew an increase in each of the years specified except in 1896, when there was a fall compared with 1891. In South Australia the average rate is the same in 1896 as in 1891, each of the subsequent years shewing an increase. In Western Australia the average rate remained constant in 1901, 1906, and 1907, with increases in each other year, while in Tasmania there was a decline in 1896 and again in 1907.

The figures given in the vertical columns of the above table are, of course, *relatively* identical with those in the corresponding horizontal lines in the table on page 26.

SECTION VI.—RETAIL PRICES, HOUSE RENTS, AND COST OF LIVING.

1. Introduction.—In Report No. 1, issued in December, 1912, the results of certain investigations into the subjects of Prices, Price-Indexes and Cost of Living in past years were published, and some account was given of the methods employed for the collection of the data and of the technique adopted in the computation of the results. An important discussion of the theory upon which the calculation of the index-numbers is based was given, but being necessarily too technical for the ordinary reader, was relegated to Appendixes.

It must here suffice to state that the method adopted for the computation of the index-numbers is what may very properly be called the "aggregate expenditure" method. The first process is, of course, to work out the average price of each commodity included, and numbers (called "mass-units") representing the *relative* extent to which each commodity was on the average used or consumed are then computed. The price in any year of each commodity multiplied by its corresponding "mass-unit" represents, therefore, the relative total expenditure on that commodity in that year *on the basis of the adopted regimen.* It follows, therefore, that by taking for any year the sum of the price of each commodity multiplied by its corresponding "mass-unit" a figure is obtained which represents the relative aggregate or total expenditure of the community in that year on all the commodities, etc., included. By computing these aggregate expenditures for a series of years and taking the expenditure in any desired year as "base," that is, making the expenditure in that year equal to 1000 units, the relative expenditure in any other year, that is to say, the "index-numbers," are readily ascertained.

As explained in the report, the mass-units, that is, the relative extent to which each commodity is used or consumed, are taken as being constant during the whole period under review.

In order to clearly illustrate the method adopted it will be well to take a simple numerical example. Suppose that in 1901 the average price of butter was 1s. 3d. per lb., of bread was 3d. per 2lb. loaf, of mutton was 3d. per lb., and of milk was 4d. per quart; and suppose that in 1911 the prices of these four commodities were 1s. 6d. for butter, 4d. for bread, 5d. for mutton, and 5d. for milk. Now the total quantities of each of these commodities consumed in Australia per annum are approximately 90 million lb. of butter, 470 million 2lb. loaves of bread, 330 million lb. of mutton, and 300 million quarts of milk. Therefore, the actual expenditure of the people of Australia on these commodities in 1901 and 1911 respectively would be as follows:—

Computation of Index-Numbers : Illustrative Example of Aggregate Expenditure Method.

Particulars.	Unit.	Quantities Consumed (0,000.000 omitted).	Prices.		Total Expenditures.	
			1901.	1911.	1901.	1911.
			d.	*d.*	*d.* (0,000,000 omitted)	*d.* (0,000,000 omitted)
Butter	.. lb.	9	15	18	135	162
Bread	.. 2lb. loaf	47	3	4	141	188
Mutton	.. lb.	33	3	5	99	165
Milk	.. quart	30	4	5	120	150
					495	665

The relative aggregate expenditure was 495 in 1901, and rose to 665 in 1911; in other words, the index-number in 1901, taking the expenditure in 1911 as the base (= 1000) was $\frac{495}{665} \times 1000 = 744$, and the index-number in 1911, taking the expenditure in 1901 as the base (= 1000) was $\frac{665}{495} \times 1000 = 1343$, which might, of course, have been obtained directly by taking the reciprocal of the result previously obtained. If now, instead of only four commodities, a representative group of fifty or more were treated in this way for a series of years, the numbers thus obtained would furnish a satisfactory index of the variations in price from year to year.

In Report No. 1, particulars were given shewing the results of the investigation, including the first nine months of the year 1912. In this report figures for the whole of that year are included. In the future it is intended to publish price index-numbers quarterly, with a more comprehensive report each year.

2. **Scope of Investigation.**—It was pointed out in Report No. 1 that, in any investigation into the question of change in cost of living of a community, a careful distinction must be drawn between two things, viz. :—

(a) Variations in the *purchasing power* of money, and

(b) Variations in the *standard of living.*

The second element (b) can be limited, at any rate to some extent, by the exercise of self denial and thrift, and such limitation is at the disposal of each individual; the former (a) is not subject to this possibility. Thus, from this aspect, social economics are concerned *primarily* with an accurate estimation of variations in the purchasing power of money and only secondarily with the question of the general standard of living which has been reached. The first desideratum demands that we shall select a suitable list of commodities, the quantities of each being taken in due proportion to their relative average consumption, and, keeping this list with the quantities constant, ascertain what it costs to purchase the whole group. In this way we can compare the cost in different areas or districts at the same time, as well as the variation in any one place from time to time. This is the "aggregate expenditure" method explained above.

Before any useful discussion can take place as to *causes* of change, it is evident that the change itself must be accurately measured.   To determine such measurements is one of the appropriate functions of a statistical office; to assign causes may or may not be outside the scope of the work of such an office, according as the causes can be determined by statistical data or otherwise.   Loose general ideas as to changes in purchasing power are of little value, and the object of a research into the question is to ascertain (a) what commodities should be included, (b) the relative quantities of each consumed, (c) the prices paid, and (d) the aggregate expenditures, i.e., what it costs to purchase the whole group.

Having determined the variations in *purchasing power,* it is hoped to further investigate at an early date the question of change in *standard of living* from time to time by the collection of householders' budgets* and other means.

As explained in Report No. 1, special steps were taken to conduct the investigation back as far as 1901 for the capital towns only.   The collection of current monthly returns as to prices and of quarterly returns of house rents commenced in thirty of the more important towns of the Commonwealth in January, 1912.

3.   **Commodities and Requirements Included.**—The 47 items of expenditure included have been divided into four groups, viz.—(a) groceries and bread, (b) dairy produce, (c) meat, and (d) house rent. The omission of clothing, fuel and light, travelling, amusements, etc., may on a superficial examination appear to limit the value of the results. Against this, reasons for which these items have been omitted were given in Report No. 1†, and it was explained that index-numbers based on these four groups satisfactorily reflect the general rise and fall in cost of living.   It should, moreover, be pointed out that whereas the expenditure on the four groups included amounts to no less than 45 per cent. on the total expenditure, cost of clothing amounts to only 12 per cent., and of fuel and light to as little as 3 per cent.   It follows therefore that before the index-numbers, based on the four groups, can cease to truly reflect variations in general purchasing value, changes in the price of clothing must have departed very widely, one way or the other, from the general change which has occurred.   This applies still more forcibly, of course, to changes in price of fuel and light.   Since prices of nearly all commodities generally move in the same direction, it is obvious that the validity of the index-numbers, based on the four groups referred to, can be vitiated only under a quite abnormal state of affairs, and even then only to a slight extent.

The following tabular statement gives particulars of the commodities and items included, the units of measurement for which prices are collected, and the mass-units shewing the relative extent to which each item is used or consumed.

* See Report on an "Inquiry into the Cost of Living in Australia, 1910-11," by G. H. Knibbs C.M.G., etc., December, 1911.   Owing to the small number of budgets returned, the deductions and tabulations based thereon are necessarily restricted.

† See "Prices, Price-Indexes and Cost of Living in Australia," Labour and Industrial Branch Report No. 1, by G. H. Knibbs, C.M.G., F.S.S., etc., December, 1912, pp. 15 to 20.

Retail Prices.—Table shewing Commodities, etc., included in Investigation, Units of Measurement, and " Mass-Units."

Commodity.	Unit.	"Mass Unit."	Commodity.	Unit.	"Mass Unit."
GROUP I.—GROCERIES (INCLUDING BREAD).			GROUP III.—MEAT.		
1. Bread	2 lb. loaf	468	26. Beef, sirloin ..	lb.	67
2. Flour, ordinary	25 lb. bags	11	27. ,, rib	,,	82
3. Tea	lb.	30	28. ,, flank	,,	12
4. Coffee	,,	2	29. ,, shin	,,	14
5. Sugar	,,	460	30. ,, steak, rump ..	,,	24
6. Rice	,,	50	31. ,, shoulder	,,	53
7. Sago	,,	8	32. ,, buttock	,,	53
8. Jam	,,	73	33. ,, corned round	,,	39
9. Oatmeal ..	,,	35	34. ,, brisket, with		
10. Raisins ..	,,	14	bone	,,	11
11. Currants ..	,,	14	35. ,, ,, without		
12. Starch	,,	1	bone	,,	32
13. Blue	doz. sqs.	$\frac{1}{2}$	36. Mutton, leg ..	,,	92
14. Candles ..	lb.	16	37. ,, shoulder ..	,,	62
15. Soap	,,	64	38. ,, loin ..	,,	30
16. Potatoes ..	14 lbs.	64	39. ,, neck ..	,,	40
17. Onions ..	lb.	68	40. ,, chops, loin	,,	62
18. Kerosene ..	gallon	17	41. ,, ,, leg	,,	15
			42. ,, ,, neck	,,	31
			43. Pork, leg	,,	$9\frac{1}{2}$
GROUP II.—DAIRY PRODUCTS.			44. ,, loin	,,	$8\frac{1}{2}$
			45. ,, belly	,,	$10\frac{1}{2}$
19. Milk	quart	300	46. ,, chops	,,	$8\frac{1}{2}$
20. Butter	lb.	95			
21. Cheese	,,	15	GROUP IV.—HOUSE RENT.		
22. Eggs	dozen	18			
23. Bacon, middles	lb.	16	47. House Rent ..	per w'k.	$46\frac{1}{2}$
24. Bacon, shoulder	,,	16			
25. Ham	,,	8			

It may here be pointed out that both in the collection of the data and computation of the results great care was exercised, and that there is reason to believe that the cost of living figures are based upon more extensive data than any which have been obtained in similar investigations in other parts of the world.

In order to give some idea of the thorough manner in which the work has been performed, it may be mentioned that with regard to the 46 commodities and house rents included in the cost of living inquiry, nearly 10,500 prices and quotations were received and tabulated for the 30 towns dealt with each month. This amounts to 126,000 per annum. The complete scheme in regard to cost of living provides for the collection and analysis of over 140,000 separate prices and quotations each year, but owing to the difficulty in getting in all the returns regularly it was necessary to provide for a larger number of returns than were actually required.

When it is understood that the cost of living inquiry goes back for the capital towns as far as 1901, and the wholesale price inquiry (80 commodities) as far as 1871, some idea may be gathered as to the

magnitude of the work involved.   All the returns received were care-
fully examined, and in cases where any price or quotation was incon-
sistent or doubtful special inquiries were made from the person furnish-
ing the return, thus affording guarantees of the accuracy of the tabulated
results.   It is believed, therefore, that a high degree of accuracy has
been obtained in the present investigation, and it is evident that
personal impressions or results not based upon an equally systematic
and equally extensive inquiry cannot be allowed weight.

4. **Variations in Cost of Living in each Metropolitan Town,
1901 to 1912.**—It is obvious that the variations in prices of commodities
included in the food and groceries groups may be of a very different
nature to movements in cost of housing accommodation, and for that
reason index-numbers have been computed—firstly, for the first three
groups (food and groceries) combined; secondly, for house rent; and
thirdly, for all groups taken together.   These index-numbers are shewn
for the capital town of each State in the tables given hereinafter.   In
addition a weighted average index-number for all the capital towns com-
bined has been computed by weighting the index-number for each town
by a number representing its population.   In each case the index-
numbers have been computed with expenditure according to average
prices in the year 1911 as base, that is to say, *the figures shew the num-
ber of units which would have had to be expended, according to the
average prices prevailing in each specified year, in order to purchase
such commodities, or to pay such amounts for rent, as would, according
to the average prices in* 1911, *have cost* 1000 *units.*

It should be observed that these index numbers do not in any way
shew the relative purchasing power of money or cost of living as between
the several capital towns; they merely shew the relative cost from year
to year in each town independently.   In other words, comparisons can
be made between the numbers in the *horizontal lines,* but cannot be
made *directly* between those in the *vertical columns.*   That they are not
directly comparable vertically is immediately evident when it is re-
membered that the expenditure in each town in 1911 (and the weighted
average expenditure for all towns) is represented by the one figure—
1000—though actually the expenditure is not, of course, the same in
each town.   The question of the *relative cost in different towns* in the
Commonwealth is dealt with hereinafter.

Index-numbers for food and groceries, and for rent, and for all
groups and rent together, are given separately in the following para-
graphs.

(i.) *Food and Groceries.*—The results obtained from the three
groups referred to above have been combined, so as to shew a
weighted average for groceries and food.   The results are of importance
as shewing the aggregate effect on the cost of living of the movements
in prices of commodities, apart from variations in house-rent.   The
index-numbers thus computed for the three groups are shown in the
following table.   Since they are reversible, the necessary calculations
for any other year as base can readily be made (see paragraph (iv.)
hereof).

Retail Prices in Metropolitan Towns, Index-Numbers for Groceries and Food (Groups I., II. and III.), 1901 to 1912.

TOWN.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
Sydney ..	927	1,078	1,040	886	982	974	946	1,041	1,023	1,011	1,000	1,136
Melbourne	1,032	1,085	1,041	980	1,018	1,010	989	1,064	1,015	1,026	1,000	1,156
Brisbane ..	948	998	970	877	928	943	930	1,006	966	983	1,000	1,082
Adelaide ..	1,008	1,007	963	922	974	963	933	990	1,006	981	1,000	1,132
Perth ..	880	946	953	899	935	919	890	911	901	930	1,000	999
Hobart ..	955	992	996	927	973	990	955	997	1,033	1,015	1,000	1,125
Weighted Average*	972	1,056	1,019	924	986	980	955	1,031	1,006	1,005	1,000	1,129

* For all capital towns.

NOTE.—The above figures are comparable horizontally, but are not directly comparable in the vertical columns. The index-numbers are reversible.

The price indexes for groceries and food are shewn by the broken lines on the graphs on pages 50 and 51 in relation to the price-indexes for house rent alone, and to the weighted averages for all groups. It may be seen that there is considerable similarity between the graphs for Sydney, Melbourne and Brisbane, the price-level being high in 1902, 1908, and 1912, and low in 1904. The fluctuations are more marked in Sydney than in either of the other two towns. In all the capital towns prices for groceries and food reached their maximum in 1912, and, reviewing the whole of the period, it may be seen that, broadly speaking, prices have tended to move upward. This upward tendency is most marked in Perth, Adelaide and Brisbane, and is least noticeable in Melbourne.

On the pages referred to, graphs are also shewn separately for each of the groups I., II., and III. The actual index-numbers since 1901 for each group were given in Report No. 1, and are not repeated here. The following table, however, shews for each of these three groups the index-numbers for 1912, compared with 1911 as base (= 1000).
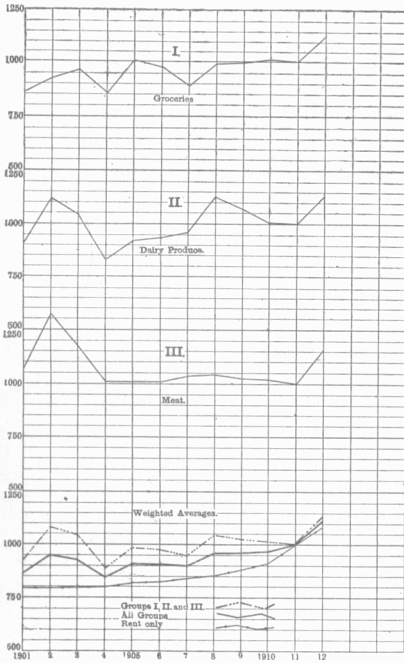
Retail Prices in Metropolitan Towns, Index-Numbers for Groceries, Dairy Produce and Meat in 1912 compared with 1911 as base (= 1,000.)

| Particulars.	Sydney.	Melb.	Brisbane.	Adelaide.	Perth.	Hobart.	Weighted Average.
Price Indexes in 1911 ..	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Price Indexes in 1912—							
I. Groceries ..	1,130	1,148	1,099	1,188	930	1,166	1,129
II. Dairy Produce ..	1,131	1,123	1,073	1,091	1,064	1,108	1,114
III. Meat	1,155	1,208	1,060	1,090	1,042	1,082	1,150
Groups I., II., and III. combined	1,136	1,156	1,082	1,132	999	1,125	1,129

The increase in 1912 was greatest in Sydney and Melbourne in Group III. (Meat), amounting to over 15 and nearly 21 per cent. respectively. In the other towns, except Perth, the increase is most marked in Group I. (Groceries), amounting to over 18 per cent. in Adelaide, and 16 per cent. in Hobart. Perth is the only town for which a fall was registered—viz., in Group I. In that town prices were steady during 1912, the net result for the three groups shewing a slight fall (999, as compared with 1000 for the previous year).

RETAIL PRICES, HOUSE RENT, AND COST OF LIVING IN METROPOLITAN TOWNS.
GRAPHS 1901 TO 1912.

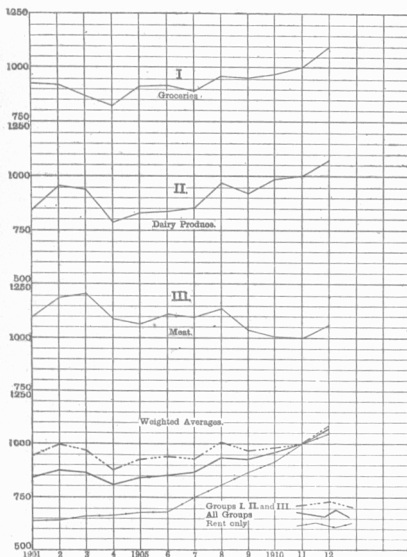SYDNEY.   MELBOURNE.
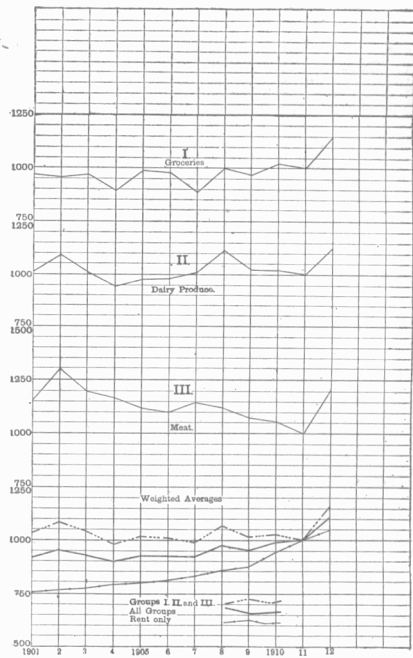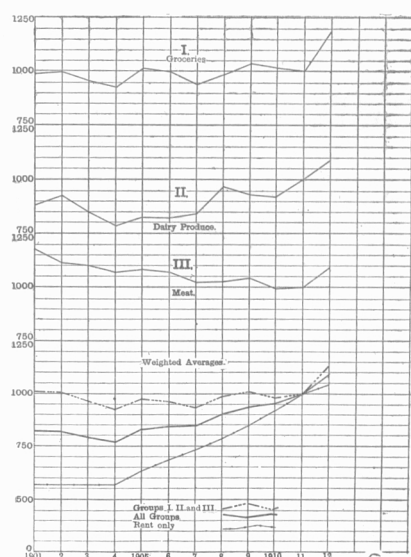
RETAIL PRICES, HOUSE RENT, AND COST OF LIVING IN METROPOLITAN TOWNS.
GRAPHS 1901 TO 1912.

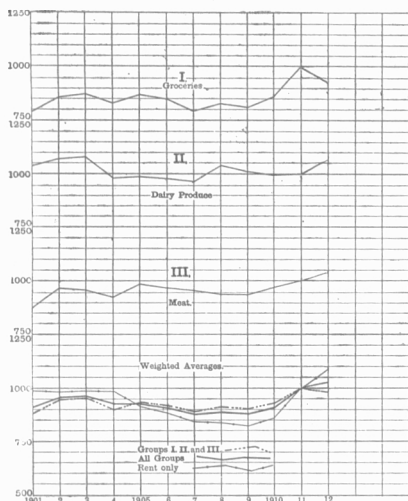BRISBANE.   ADELAIDE.
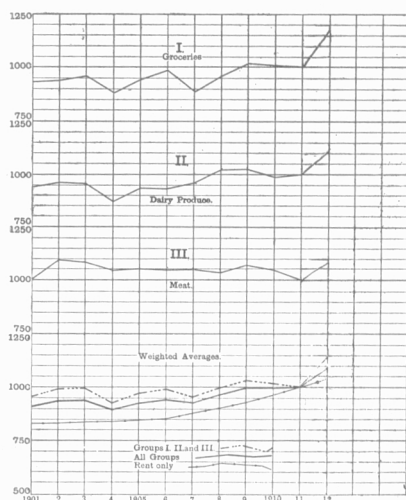
RETAIL PRICES, HOUSE RENT, AND COST OF LIVING IN METROPOLITAN TOWNS

GRAPHS, 1901 TO 1912.

PERTH AND FREMANTLE.   HOBART.

The increase for the three groups combined was greatest in Melbourne, followed, in the order named, by Sydney, Adelaide, Hobart and Brisbane. It is obvious, of course, that the conditions governing prices in Perth, where there was a small fall in price level, are in many respects very different to those in the Eastern States.

(ii.) *House Rent.*—In the following table index-numbers are given computed for the weighted average house rent in each of the capital towns from 1901 to 1912, taking the average rent in 1911 as the base (= 1000). The average rent has been obtained for each town separately by multiplying the average predominant rent for each class of house (*i.e.*, houses having less than 4 rooms, 4 rooms, 5 rooms, 6 rooms, 7 rooms, and over 7 rooms) by a number ("weight") representing the relative number of houses of that class in the particular town. The sum of the products thus obtained, divided by the sum of the weights, gives the weighted average for all houses.* The number of houses in each class for each town was obtained from the results of the 1911 Census. It should be observed, therefore, that these index-numbers

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* The process may be illustrated mathematically as follows :—If a_1, a_2, a_3. . . . etc., be the average predominant rents in any town for houses of under 4 rooms, 4 rooms, 5 rooms, etc., . . . respectively, and if n_1, n_2, n_3 . . . etc. be the corresponding numbers of houses of each such class in that town, then the weighted average rent $= \dfrac{n_1 a_1 + n_2 a_2 + n_3 a_3 + \ldots}{n_1 + n_2 + n_3 + \ldots} = \dfrac{\Sigma(na)}{N}$ where $N =$ the total number of houses in the town.

are based on the weighted average rents for all houses, and that they do not refer to any particular class of houses. The actual predominant rents for each class were given in an appendix to Report No. 1, and an examination of these figures shews that for some classes of houses the increase has been greater, and in some less, than the general increase indicated in the following table.

House Rents in Metropolitan Towns, Index-Numbers shewing Weighted Average Rents (Group IV.), 1901 to 1912.

Town.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
Sydney ..	792	792	794	797	818	822	840	851	880	910	**1,000**	1,085
Melbourne	756	767	771	788	795	806	829	854	868	945	**1,000**	1,047
Brisbane ..	637	641	660	662	676	683	750	803	862	912	**1,000**	1,048
Adelaide ..	566	566	566	566	631	684	730	784	845	916	**1,000**	1,043
Perth ..	988	982	989	985	912	883	844	837	823	859	**1,000**	1,086
Hobart ..	829	831	836	838	846	852	880	904	931	964	**1,000**	1,030
Weighted Average*	755	759	763	770	784	794	818	841	868	921	**1,000**	1,063

* For all capital towns.

NOTE.—The figures in the above table are comparable horizontally, but are not directly comparable in the vertical columns. The index-numbers are reversible.

The above figures are shewn on the graphs on pages 50 and 51, in relation to the combined price-indexes for the other groups, and for all groups together. It may be seen that, except in Adelaide, where rents remained constant from 1901 to 1903, and in Perth, where they decreased from 1903 to 1907, and again in 1909, there has been a uniform increase in each metropolitan town during the whole of the period under review. The increase has been greater in Adelaide (where the average rent in 1901 was only 566, compared with 1000 in 1911, and 1051 in 1912), and in Brisbane than in the other towns. It should be observed, however, that at the commencement of the period rents were exceptionally low in Adelaide, and were comparatively low in Brisbane (see Appendix IV. to Report No. 1). The graph for Perth presents features entirely different from those for the other towns; the fall in rents commencing in 1903 and lasting until 1907 is followed, after another temporary decline in 1909, by a rapid rise.

(iii.) *Cost of Living.*—The weighted averages for all four groups are of importance, as indicating the general results of this investigation so far as cost of living is concerned. The following table shews the index-numbers for groceries, food, and house-rent for each metropolitan town, computed to the year 1911 as base (= 1000):—

Cost of Living in Metropolitan Towns, Index-Numbers shewing Weighted Average Results for all Groups (Groceries, Dairy Produce, Meat, and House Rent), 1901 to 1912.

Town.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
Sydney	866	950	929	846	909	906	898	956	959	965	1,000	1,113
Melbourne	916	951	927	899	924	924	922	976	953	992	1,000	1,111
Brisbane ..	841	875	863	803	841	853	868	936	930	959	1,000	1,071
Adelaide ..	817	816	791	768	826	843	845	901	936	953	1,000	1,094
Perth ..	912	957	964	925	928	909	876	889	878	909	1,000	1,025
Hobart ..	911	937	941	897	929	942	929	965	998	997	1,000	1,092
Weighted Average*	880	929	910	858	901	902	897	951	948	970	1,000	1,101

* For all capital towns.

NOTE.—The figures shewn in the above table are comparable horizontally, but are not directly comparable in the vertical columns. The index-numbers are reversible.

These figures are shewn separately for each town by the heavy line in the graphs on pages 50 and 51, in comparison with graphs shewing index-numbers for groceries and food, and for house-rents. In all the towns the graphs disclose a distinct upward movement during the period under review, the rise in 1912 being particularly marked.

Generally speaking, prices were low in 1904, high in 1902 and 1908, and still higher in 1912. The general trend of the graph for Perth is different to that for the other towns, owing mainly to the decline in house-rents in that place, which occurred from 1903 to 1907, and again in 1909.

The general result for all the six towns shews that cost of living was slightly over 10 per cent. higher in 1912 than in 1911. The amount of the increase was almost identical in Sydney and Melbourne, and in Adelaide and Hobart. It was somewhat lower in Brisbane than in either of the four towns just referred to, and was least in Perth.

(iv.) *Reversibility of Index-numbers.*—Attention has already been drawn to the fact that index-numbers computed by the aggregate expenditure method adopted in this Report are *really reversible,* so that, if it be desired to ascertain the price-indexes with any year other than that shewn in the tables herein as base, the necessary arithmetical work can readily be performed.

For example, turning to the above table, shewing index-numbers for cost of living, if it be desired to ascertain the index-number for Sydney, with the year 1901 as base (1901 expenditure = 1000), the index-number for 1901 will, of course, be 1000 instead of 866, that for 1902 will be $^{950}/_{866} \times 1000 = 1097$, for 1903 will be $^{929}/_{866} \times 1000 = 1073$, for 1911 it will be $^{1000}/_{866} \times 1000 = 1155$, and so on.

Similarly in regard to all other index-numbers given in this Report, *the figures may readily be reversed,* so as to shew the relative expenditure with any desired year as base.

5. **Relative Cost of Living in Different Towns, 1912.**—The index-numbers given in the preceding paragraphs shew *changes in the cost of living separately for each individual town during the years* 1901 *to* 1912. The figures given in the table on page 55 shew *the relative cost*

of living in 1912 *in the thirty towns*, for which particulars are now being collected. The cost of living in each town is compared with the weighted average for all towns. That is to say, the average expenditure in each town has been weighted by a number representing the population of the town, and a weighted average expenditure for all towns has been computed. Taking this average expenditure as the base (= 1000), the relative expenditure in each town is shewn. Owing to the concentration of population in the capital towns, the prices and rents in these towns have a preponderating influence on the weighted average index-numbers for all towns combined.

The first column of the table on page 55 shews the relative cost of groceries and food in the thirty towns specified. The second, third, fourth and fifth columns give similar information in regard to houses of 4, 5 and 6 rooms, and for all houses, respectively. The weighted average for all houses is obtained separately for each of the thirty towns by "weighting" the rent paid for each class of house by the number of houses in each respective class in each town. If houses of any particular size only are included, different results may be obtained. This is evident when it is remembered that the distribution of houses according to number of rooms is substantially different in some of the towns; that is to say, there are a greater number of large, and therefore of relatively more expensive houses, in some towns than in others, and *vice versa,* and consequently the weighted average rents in the former class of towns refer to a larger size of house than in the latter class. Separate results are, accordingly, given for the several classes of houses specified in the table.

The figures in the last four columns furnish results for expenditure on groceries and food, combined with expenditure on rent, for each of the three classes of houses indicated, and also for the weighted average of all houses.

(i.) *Groceries and Food.*—As regards groceries and food, it may be seen that the most expensive towns are in Western Australia, where prices in Kalgoorlie and Boulder are highest. In the other States Broken Hill is the most expensive, followed, in the order named, by Zeehan, Charters Towers, Queenstown, Beaconsfield, Port Pirie and Hobart. Prices were lowest in Mount Gambier and Warrnambool.

(ii.) *House Rent.*—The index-numbers in the fourth column shew that the most expensive town for house rent is Sydney, followed in the order named by Adelaide, Geraldton (W.A.), Melbourne, Goulburn, Geelong and Perth. Rents were cheapest in Beaconsfield and Zeehan.

(iii.) *Cost of Living.*—The last column shews that in regard to cost of living generally (according to the prices and house rents prevailing in the year 1912), the most expensive towns were Kalgoorlie and Boulder, where the cost was 22.5 per cent. above the weighted average. The next towns in point of expense were Geraldton (W.A.), Sydney, Adelaide, Perth and Fremantle, Midland Junction, Bunbury, Broken Hill and Melbourne. The least expensive towns were Beaconsfield, Mount Gambier, Ballarat, Bathurst and Moonta (equal), and Bendigo, in the order named.

As regards the capital towns, it may be seen that Sydney was the most expensive, followed in the order named by Adelaide, Perth, Melbourne and Hobart, Brisbane being the cheapest.

Cost of Living, 1912.   Index-Numbers shewing Relative Cost in each of Thirty Towns (including 4, 5, and 6-roomed Houses and all Houses), compared with Weighted Average Cost for all Towns.

| Town. | Groceries & Food. | HOUSE RENT. | | | | GROCERIES, FOOD, AND RENT, INCLUDING HOUSES HAVING— | | | |
		4-room'd Houses only.	5-room'd Houses only.	6-room'd Houses only.	All Houses Weight'd Average.	4 Rooms.	5 Rooms.	6 Rooms.	All Houses. Weight'd Average.
N.S. WALES—									
Sydney ..	986	1,273	1,213	1,191	1,237	1,078	1,070	1,071	1,082
Newcastle ..	995	645	752	767	688	883	905	900	877
Broken Hill .	1,186	831	838	814	679	1,073	1,058	1,031	991
Goulburn ..	990	616	843	861	904	871	936	936	957
Bathurst ..	950	635	639	669	672	849	835	833	843
VICTORIA—									
Melbourne ..	949	977	978	996	1,000	958	960	968	969
Ballarat ..	973	477	538	579	624	815	813	809	839
Bendigo ..	976	588	619	647	649	852	844	839	851
Geelong ..	952	719	775	836	854	878	887	904	915
Warrnambool	928	715	734	727	747	860	856	844	858
QUEENSLAND—									
Brisbane ..	966	678	696	753	792	874	867	877	899
Toowoomba ..	965	618	701	672	788	854	868	842	897
Rockhampton	1,002	625	611	656	694	882	858	858	884
Charters T'w'rs	1,134	602	674	646	592	964	965	930	926
Warwick ..	1,003	727	723	718	790	915	900	884	921
S. AUSTRALIA—									
Adelaide ..	1,012	1,173	1,245	1,210	1,143	1,064	1,098	1,095	1,062
Moonta, &c. ..	1,014	523	570	618	567	858	851	849	843
Port Pirie ..	1,048	845	793	738	720	983	954	919	922
Mt. Gambier ..	904	606	625	639	640	809	802	793	808
Petersburg ..	1,018	837	840	823	791	960	953	936	931
W. AUSTRALIA—									
Perth	1,180	968	971	952	867	1,112	1,103	1,085	1,060
Kalgoorlie, &c.	1,471	1,136	1,128	1,103	830	1,364	1,345	1,318	1,225
Mid. Junct. &c.	1,209	760	863	875	745	1,066	1,082	1,070	1,031
Bunbury ..	1,231	869	830	842	664	1,115	1,083	1,069	1,013
Geraldton ..	1,237	1,356	1,361	1,235	1,017	1,275	1,283	1,236	1,152
TASMANIA—									
Hobart ..	1,044	821	807	789	816	973	957	938	957
Launceston ..	985	766	801	803	806	915	917	909	916
Zeehan ..	1,142	572	684	685	443	960	973	951	874
Beaconsfield ..	1,054	352	321	310	286	830	784	743	759
Queenstown ..	1,130	711	700	748	548	996	972	971	907
Weighted Average	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

Some few words as to the proper interpretation of the above table may not be out of place. The weighted average for all towns represents the price paid, on the average, by the people of all the towns regarded as a single community. In other words, if the people of the thirty towns are paying *on the average* £1000 for groceries and food, the people in Sydney are paying £986, those in Newcastle £995, and so on. (See column I.) Or again, if the people of the thirty towns are paying on the average £1000 for the four series of items, then those of Melbourne are paying £969, of Ballarat £839, and so on. (See final column.) Thus, in this table, the figures are *comparable vertically, but are not directly comparable horizontally*, and this is to be carefully borne in mind in making comparison. That they are not directly comparable horizontally is immediately evident when it is remembered that each series, or group, for all towns is represented by the one figure—1000—though actually they do not represent equal amounts.

It is proper to observe that these index-numbers are also *reversible,* that is to say, if it be desired to take the expenditure in any particular town as base, the necessary calculations can readily be made. For example, referring to the index-numbers for all groups (see final

column), taking expenditure in Melbourne as the base (= 1000 instead of 969), the relative cost in Sydney is—$^{1082}/_{969} \times 1000 = 1117$; in Brisbane, $^{899}/_{969} \times 1000 = 928$; and so on. In other words, cost of living is 11.7 per cent. more in Sydney, and 7.2 per cent. less in Brisbane than in Melbourne.

Comparing the first column with the fifth and last columns, it may be seen that the relative costs in the different towns in regard to the two main divisions, and the weighted average for all groups combined, differ considerably. Thus, in Sydney the index number for rent (all houses), is 1237, or 23.7 per cent., above the weighted average for all towns, whereas the index number for groceries and food is 986, or 1.4 per cent. below the average. In Brisbane, on the other hand, the index-number for groceries and food is greater than that for house-rent, both numbers being below the weighted average. In some of the smaller towns, too, especially in the mining districts, it may be seen that rents are very low, and groceries high, compared with the weighted average.

6. **Variation in Purchasing Power of Money, 1901 to 1912.**— In several of the tables given in the preceding paragraphs, attention has been drawn to the fact that the index-numbers are not directly comparable either horizontally or else in the vertical columns. The reasons for this were also pointed out. By combining the figures given for the capital towns on pages 53 and 55 (a) shewing variations in cost of living from year to year in each town separately, and (b) shewing relative cost of living in the several towns during the year 1912, results which are in all respects comparable may be obtained. These are shewn in the following table, in which the average cost for the six capital towns in the year 1911 has been taken as the base. This base has been taken as equal to 20s., instead of 1000, as in the former tables.

These figures shew not only the variations in cost of living from year to year in each town separately, but also (in the horizontal lines) the relative cost in the several towns in each year. Thus each value given for any town and year is directly comparable with any other value. It may be seen, for example, that 18s. 2d. in Sydney in 1901 was equivalent to 17s. 5d. in Melbourne, or to 20s. 3d. in Perth in 1906, and to 20s. on the average in all six towns in 1911, and to 23s. 4d. in Sydney in 1912.

Purchasing Power of Money.—Amounts necessary on the Average in each Year from 1901 to 1912 to purchase in each Capital Town, what would have cost on the average £1 in 1911 in the Australian Capitals regarded as a whole.

Year.	Sydney.		Melbourne.		Brisbane.		Adelaide.		Perth.		Hobart.		Weighted average of 6 Capital Towns.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
1901	18	2	17	3	15	2	17	1	20	4	17	3	17	7
1902	19	11	17	11	15	10	17	1	21	4	17	9	18	7
1903	19	6	17	6	15	7	16	7	21	5	17	10	18	2
1904	17	9	16	11	14	6	16	1	20	7	17	0	17	2
1905	19	1	17	5	15	2	17	3	20	8	17	7	18	0
1906	19	0	17	5	15	5	17	8	20	3	17	10	18	0
1907	18	10	17	4	15	8	17	8	19	6	17	7	17	11
1908	20	1	18	5	16	11	18	10	19	9	18	3	19	0
1909	20	2	17	11	16	10	19	7	19	6	18	11	19	0
1910	20	3	18	8	17	4	19	11	20	3	18	10	19	5
1911	21	0	18	10	18	1	20	11	22	3	18	11	20	0*
1912	23	4	20	11	19	4	22	11	22	10	20	8	22	0

* Basis of table.

The figures given in the vertical columns of the above table are *relatively* identical with those given in the horizontal lines in the table on page 53, while those in the horizontal line for the year 1912 are *relatively* identical with those given for the same towns in the table on page 55.

The table also illustrates a feature which has not hitherto been directly dealt with, viz., the relative cost of living in the six towns during each year from 1901 to 1912, inclusive. This is shewn in the horizontal lines. It may be seen that while the cost of living was least throughout the period in Brisbane, it was greatest up to, and including, the year 1907 in Perth. Owing mainly to the fall in house rents, cost of living in the latter town was less in 1908 than in Sydney and in 1909 than in either Sydney or Adelaide. In 1910, however, rents in Perth increased, and in that year Sydney and Perth are bracketed equal as the most expensive towns. In 1911 there was a rapid increase in both prices of groceries and house rent in Perth, and that town was accordingly the dearest, but in 1912 the prices of groceries fell, while the prices of dairy produce and meat did not increase as rapidly as in other towns, with the result that cost of living in that year was greater in both Sydney and Adelaide than in Perth. The effect of the variations in price and rent levels on the relative cost of living may be better appreciated by reference to the graphs on pages 50 and 51.

7. **Monthly Fluctuations in Cost of Living, 1912.**—The year 1912 being the first year for which monthly returns were collected for the thirty towns in the Commonwealth, a special investigation was made in regard to monthly and seasonal fluctuations in price. The weighted average results for all the thirty towns are shewn in the following table, the index-numbers for each month being computed with the average prices for the whole year as base ($= 1000$). In the last column a corresponding index-number for the month of January, 1913 (computed to the same base) is shewn. The *seasonal* fluctuations are practically confined to prices of food and groceries, the quarterly returns of house rents being generally fairly constant or else shewing a slight upward tendency during the year. Index-numbers for groceries and food alone and also combined with house rent are shewn in the table. It will be seen that the inclusion of house rent naturally has a steadying effect on the amount of *range* in cost of living.

Monthly Fluctuations in Prices of Groceries and Food and Cost of Living, Weighted Average Results for Thirty Towns, 1912.

Particulars.	Jan.	Feb.	Mar.	Apr.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Whole Year 1911.	Jan., 1913.
Groceries & Food	925	938	937	978	986	992	1,028	1,058	1,060	1,060	1,054	984	**1,000**	962
Groceries, Food, and House Rent	939	952	953	981	989	996	1,021	1,042	1,044	1,045	1,040	997	**1,000**	984

The significance of these figures may be more readily appreciated by reference to the following graphs, from which it may be seen that cost of living increased each month from January to September, inclusive. There was a slight decline in November, followed by a heavy

fall in December. In January, 1913, the level was considerably higher than in the same month in the previous year. This shows that, in addition to the increase during the year owing to seasonal fluctuations, there has also been a general increase in cost of living, which is reflected in the index numbers already given (see p. 53 and graphs on pages 50 and 51.

In the absence of fuller information as to the nature of the annual progression itself (which can only be to hand in the future, and when later results have been obtained) the best indication of the monthly fluctuation is obtained by supposing the annual changes in price-level to be equal to the difference between the levels in January, 1912, and January, 1913, and to be represented by the dotted lines shewn on the graph.

Seasonal Fluctuations in Cost of Living, 1912.
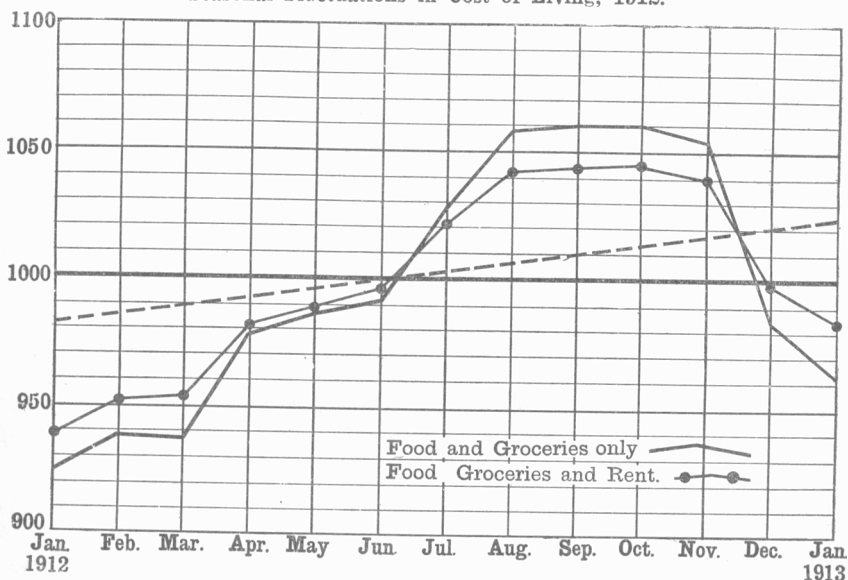
8. Cost of Living in Northern Territory, 1913. — Returns have been received for the month of January, 1913, in regard to retail prices in Darwin. No particulars as to house rents are, however, yet available. The retail prices, which are shewn in detail in Appendix II., give the following results compared with average prices in the other thirty towns in the Commonwealth for which data are collected:—

Northern Territory.—Cost of Living compared with average for Thirty other Towns in Commonwealth, January, 1913.

Particulars.	I. Groceries.	II. Dairy Produce.	III. Meat.	IV. Food and Groceries.*
Average 30 Towns ..	**1,000**	**1,000**	**1,000**	**1,000**
Darwin	1,595	1,302	1,284	1,404

* Weighted average of Groups I., II., and III. combined.

These results shew that in January, 1913, cost of food and groceries in Darwin was over 40 per cent. more expensive than the average for the other towns of the Commonwealth for which returns are collected.

9. **Tables of Prices and House Rents, 1912.**—While it is intended to publish summarised results of price-movements quarterly, the actual data upon which the investigation is based will be published only annually. In the Appendixes to Report No. 1 particulars were given of prices and house rents in the metropolitan towns in each year since 1901.

In Appendix II. hereof particulars are given of average prices in 1912 for each of the thirty towns from which returns are collected, and in Appendix III. similar information is given in regard to house rents.

SECTION VII.—WHOLESALE PRICES.

1. **General.**—The results of an investigation into wholesale prices in Melbourne were given in some detail in Report No. 1, from 1871 to the end of September, 1912. In this section summarised results are now included for the whole of the latter year.

The data upon which the investigation is based were obtained mainly from reports of Melbourne market prices, published in the ordinary press, and in special trade reviews. In any case of doubt as to the reliability of the figures, the records thus obtained were verified by reference to well-known and important business firms, dealing in the articles in question. Every care was taken to ensure that the prices quoted for each article refer to a uniform quality, and, in cases where more than one source of information was utilised for obtaining prices of single commodities, special precautions were taken to ensure substantial continuity of quality or grade. In nearly every case monthly prices were obtained, and arithmetic averages for the several years were computed. In regard, however, to a few commodities, such as coal, tea, cotton and wool, monthly prices were not available; yearly averages, based in each case upon expert opinion, were secured.

It was at first intended to obtain records, on the lines indicated, for a uniform list of commodities for the capital town of each State. Owing, however, to the large amount of work involved, and to the difficulty experienced in obtaining regularly the prices of anything like a uniform representative list of commodities from the papers and journals published in some of these towns, this idea has for the present been abandoned.

2. **Commodities Included, and Methods Adopted.**—Retail prices have the advantage that a comparatively small list of commodities suffices to represent a large proportion of the average expenditure. They are, however, subject to the difficulty that their variations depend largely upon local conditions, and it is, therefore, ordinarily necessary to collect the data over a wide area. Wholesale prices, on the other hand, are fixed usually at one or two centres, but a much larger list of commodities must be covered.

The index-numbers up to the year 1911 are based on the prices of eighty commodities, but since that year the number has been increased to ninety-two.* The methods followed for the computation of the wholesale price index-numbers are the same as those adopted in regard to retail prices. The commodities included, the units of measurement for which the prices are taken, and the mass-units, indicating the relative extent to which each commodity, in the units of measurement specified, is used or consumed, are shewn in the following statement.

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* In the computation of the index-numbers for years prior to 1911, the aggregate expenditure on 80 commodities in 1911 is taken as base (=1000), while for later years the aggregate expenditure on 92 commodities is taken.

Melbourne Wholesale Prices, Commodities included, Units of Measurement, and "Mass-Units."

Group I.

Commodity.	Brand.	Unit.	Mass Unit.
Iron—			
Pig	M'x'd Nos.	ton	6½
Rod & Bar	Stafford	,,	3½
Angle & T	,,	,,	3½
Plate	,,	,,	3
Hoop	,,	,,	½
Galvanized	26 gauge	,,	5
Tinn'd Plates	I C. Coke	cwt.	60
Fencing Wire	No. 8	ton	6
Zinc Sheet		,,	1
Lead, Sheet		,,	¾
,, Pipes		,,	½
Copper Sheet		lb.	2,000
Quicksilver		lb.	12
Coal	Newc'stle on Wharf	ton	600
Total			2,702½

Group II.

Commodity.	Brand.	Unit.	Mass Unit.
Branbags		doz.	110
Cornsacks		,,	250
Woolpacks		each	200
Leather, Kip		lb.	1,070
,, Calf		,,	700
,, Basils		doz.	25
Cotton	Raw	lb.	24,000
Wool	Greasy	,,	12,200
Twine	Reaper & Binder	,,	150
Tallow	Mutton Prime	ton	1¾
Total			38,706¾

Group III.

Commodity.	Brand.	Unit.	Mass Unit.
Wheat		bushel	500
Flour		ton	48
Bran		bushel	1,400
Pollard		,,	1,400
Oats	Feed	,,	1,200
Oatmeal	Colonial	ton	1½
Barley	Malting	bushel	150
,,	Feed	,,	100
Maize		,,	1,000
Hay	Best M'ng'r	ton	135
Chaff	Good oaten	,,	135
Straw	Victorian	,,	25
Peas		bushel	55
Potatoes		ton	40
Malt	Victorian	bushel	140
Onions		ton	3
Total			6,332½

Group IV.

Commodity.	Brand.	Unit.	Mass Unit.
Ham		lb.	800
Bacon		,,	3,200
Cheese		,,	1,500
Butter	Best Fresh	,,	9,500
Lard	In Bladders	,,	200
Eggs	Ordinary	doz.	1,800
Honey		lb.	600
Beeswax		lb.	40
Condensed Milk	Bacchus Marsh	doz. lb.	160
Total			17,800

Group V.

Commodity.	Brand.	Unit.	Mass Unit.
Currants		lb.	1,400
Raisins	Sultanas	,,	1,400
Herrings	1lb. tins	doz. 1 lb. tins	50
Salmon	,,	,,	50
Sardines	Halves	doz. halves	100
Coffee	Plantation	lb.	200
Cocoa	Taylor's	,,	100
Sugar	No. 1A	ton	22
Macaroni		lb.	200
Sago		,,	800
Rice	Patna	ton	2
Salt	Liverpool fine	,,	7
Salt	Rock		1
Mustard	Coleman's	doz. 1 lb. tins	6
Starch	Coleman's White	lb.	100
Blue	Keen's	lb.	50
Matches	Wooden Safety	gross	90
Candles	Gouda	lb.	1,600
Tobacco	Two Seas in Po'ket Pcs.	lb.	1,300
Tea		lb.	3,000
Kerosene		gallon	1,700
Total			12,178

Group VI.

Commodity.	Brand.	Unit.	Mass Unit.
Beef	Average quality.	100 lbs.	390
Mutton	,,	lb.	33,000
Veal	,,	lb.	2,000
Lamb	,,	each	200
Pork	,,	lb.	3,700
Total			39,290

Group VII.

Commodity.	Brand.	Unit.	Mass Unit.
Timber :—	Flooring		
	6 x 1½	100 ft. lin.	30
	,, 6 x ⅞	,,	30
	,, 6 x ¾	,,	30
	,, 6 x ½	,,	30
	Weatherboards	,,	200
	Oregon	1,000 ft.sup	20
	Shelving	,,	10
Cement	Portland	cask	30
White Lead		ton	¾
Slates	Welsh 20 x 10	1000	½
Total			381¼

Group VIII.

Commodity.	Brand.	Unit.	Mass Unit.
Cream of Tartar	In Kegs	lb.	400
Carbonate of Soda		ton	½
Saltpetre	Refined	,,	1/20
Sulphur		,,	¼
Caustic Soda		cwt.	7
Alum	Lump	cwt.	¼
Cyanide Potassium		lb.	570
Total			978 1/20

2. **Index - Numbers and Graphs.**—Index-numbers have been computed for each group of commodities, as well as for all groups together. The index-numbers for the several groups, and for all groups together, are shewn in the following table. In regard to Group VI., it should be observed that reliable and uniform records as to prices of meat could not be obtained further back than 1890 (except for the years 1884 and 1885). Index-numbers were accordingly worked out for the full period since 1871 for the seven groups, *excluding* meat, and also for the period since 1890, for the eight groups, *including* meat. The figures shewn in the last column of the subjoined table for years prior to 1890 (except for 1884 and 1885) have, accordingly, been adjusted (on the basis of the results for succeeding years), so as to include meat.

(i.) *Table of Index-numbers.*—The index-numbers have in each case been computed with the prices in the year 1911 as base; that is to say, *they shew the amount which would have had to be expended in each of the years specified in order to purchase what would have cost £1000 in 1911, distributed in purchasing the relative quantities (indicated by the mass-units) of the several commodities included in each group, and in all groups respectively.* Thus, in the last column it may be seen that the cost of the relative quantities of the various commodities was 1229 in 1871, and 974 in 1901, as compared with 1000 in 1911, and 1170 in 1912. In other words, prices were lower in 1911 than in either 1871 or 1912, and the purchasing power of money in 1911 was, accordingly, greater. Again, prices were higher in 1911 than in 1901, and the purchasing power of money in the former year was therefore less.

Melbourne Wholesale Prices, Index Numbers, 1861 to 1912, Computed to Year 1911 as Base.

YEAR.	I. Metals and Coal.	II. Jute, Leather, &c.	III. Agricultural Produce, &c.	IV. Dairy Produce.	V. Groceries.	VI. Meat.	VII. Building Materials.	VIII. Chemicals.	All commodities together.
1861 ..	1,438	1,381	1,583	1,008	1,963	—	1,070	2,030	**1,538**
1871 ..	1,096	1,257	1,236	864	1,586	—	1,044	1,409	**1,229**
1881 ..	1,178	1,115	1,012	935	1,421	—	1,091	1,587	**1,121**
1891 ..	895	847	1,024	995	1,032	838	780	1,194	**945**
1901 ..	1,061	774	928	1,029	1,048	1,345	841	917	**974**
1902 ..	1,007	756	1,192	1,215	945	1,447	837	881	**1,051**
1903 ..	923	834	1,209	1,059	936	1,443	875	921	**1,049**
1904 ..	821	885	754	876	916	1,427	845	875	**890**
1905 ..	772	850	894	980	942	1,209	801	859	**910**
1906 ..	882	978	916	972	923	1,110	896	864	**948**
1907 ..	1,037	1,017	973	1,020	948	1,294	968	961	**1,021**
1908 ..	1,033	901	1,312	1,198	968	1,335	935	891	**1,115**
1909 ..	1,014	907	1,000	1,119	978	1,088	911	815	**993**
1910 ..	1,004	1,052	969	1,100	999	1,008	996	898	**1,003**
1911 ..	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**
1912 ..	1,021	991	1,370	1,206	1,052	1,357	1,057	978	**1,170**

NOTE.—The figures given in this table are comparable in the vertical columns, but are not directly comparable horizontally. The index-numbers are reversible.

(ii.) *Graphs.*—The index-numbers are shewn for each group and for all groups combined in the graphs on page 63. The heavy line, repeated on each graph, represents the index-numbers for the weighted average for all groups, and is shewn so that comparison may be made between the price levels for all commodities and those for the com-

MELBOURNE WHOLESALE PRICE INDEX-NUMBERS, 1861 TO 1912.*
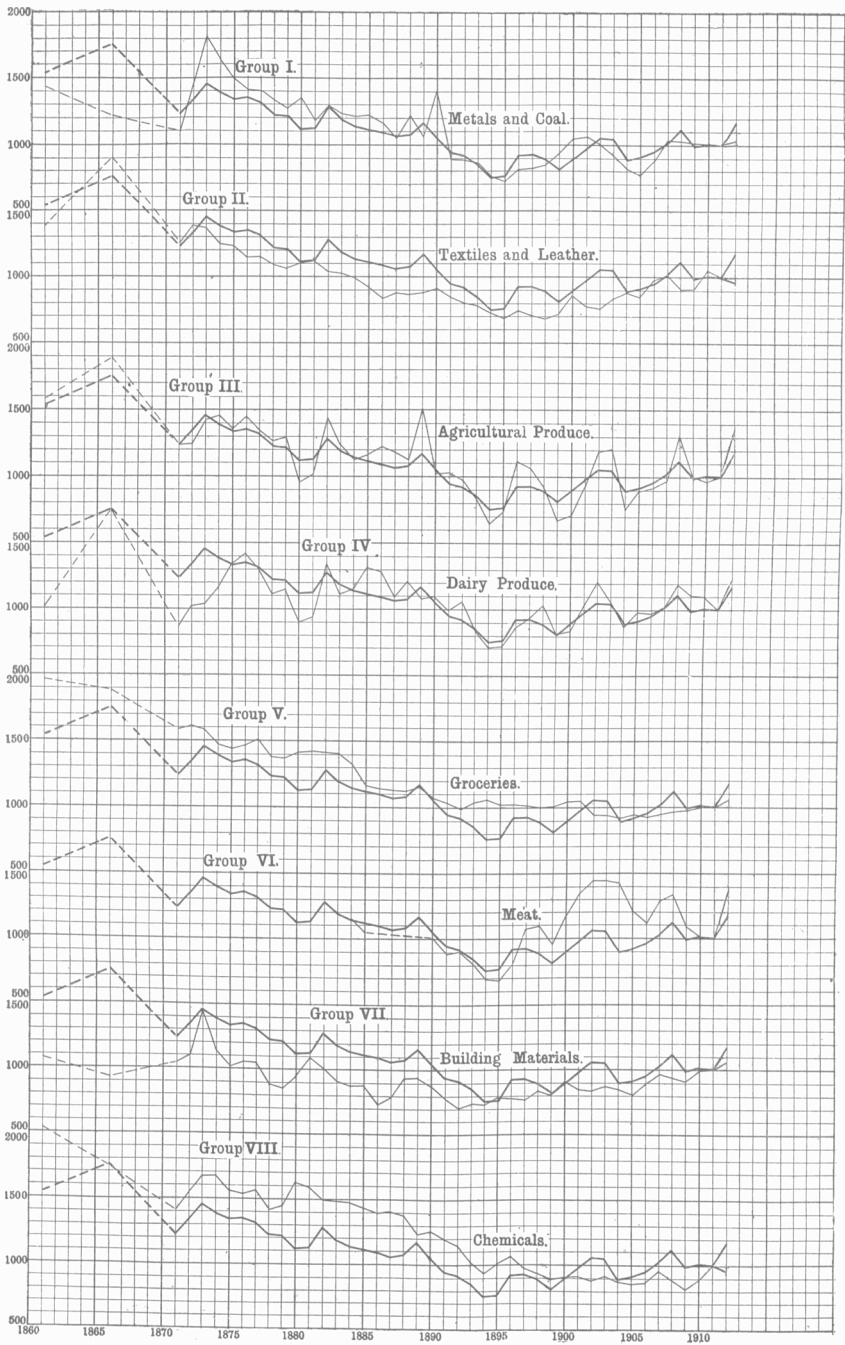
* Numbers for 1912 are based on the average prices for the first nine months only.

EXPLANATORY NOTE.—The scale for each graph is shewn by the figures on the left of the diagram, the line marked 1000 shewing the base line (for the year 1911) in each case. The heavy line in each graph represents the index-numbers for all groups combined, the light line indicating in each case the index-numbers for the separate group.

modities comprised in each group separately.   The index-numbers for
the individual groups are represented by the light lines.   The broken
lines at the commencement of each graph shew the index-numbers for
the separate years, 1861 and 1866, the continuous records commencing
with the year 1871.   The actual index-numbers for the whole period
were given in Report No. 1.

(iii.) *Seasonal Fluctuations in Wholesale Prices,* 1912.—In order
to shew the seasonal fluctuations in wholesale prices, index-numbers have
been computed for each quarter of the year 1912. These are shewn in the
following table, the first line giving the index-numbers computed with
the year 1911 as base, the second line with the average prices for the
year 1912 as base.   In the last line corresponding figures for cost of
living (retail prices and house rents) have been included for compara-
tive purposes.

Melbourne Wholesale Prices—Quarterly Index-Numbers, 1912.

Particulars.	Jan. to March.	April to June.	Feb. to Sept.	Oct. to Dec.	Whole Year.
Index-Numbers with 1911 as base (= 1,000) ..	1,065	1,165	1,227	1,202	1,170
Index-Numbers with average for 1912 as base (= 1,000)	910	996	1,049	1,027	**1,000**
Cost of Living Index-Numbers, with average for 1912 as base (= 1,000)	948	989	1,036	1,027	**1,000**

The first line of this table shows that, whereas prices in the first
three months of the year were 6.5 per cent. higher than the average
for 1911, by the third quarter they had risen to over 22 per cent.
The last two lines shew that the seasonal fluctuations in wholesale price
and cost of living index-numbers are similar in character, prices being
lowest in the first quarter, and highest in the third.   It may be seen,
however, that the fluctuations are more marked in the case of whole-
sale prices, and this phenomenon is observed not only in regard to
seasonal fluctuations, but also in movements from year to year, both
in Australia and other countries.

4. **Table of Prices, 1912.**— In Appendix IV., particulars are
given as to the average price of each commodity in the year 1912.
Corresponding information for previous years, as far back as 1871,
was given in Appendix VI. to Report No. 1.

SECTION VIII.—NOMINAL AND EFFECTIVE WAGES.

1. General.—In order to obtain an accurate measure of the progress of wage-earners, regard must be had to the purchasing power of wages, and the index-numbers based merely upon records of *rates* of wages must consequently be subject to some correction, inasmuch as they take no account of (a) variations in cost of living, and (b) loss through the extent of unemployment. The data furnished in this Report in respect, firstly, to cost of living index-numbers, and, secondly, relative percentages unemployed, afford the material by means of which the necessary adjustments can be effected with considerable precision. The results will show the variations in *effective* wages or in what may be called the "standard of comfort."*

2. Variations in Effective Wages and Standard of Comfort, 1891 to 1912.—The following table contains the gist of the whole matter. The first correction to be made is that for the relative time lost through unemployment. Column I. shews the rate of wages index-numbers (see Section IV. hereof), and Column II. the relative percentages unemployed (see Section III.). Applying these percentages to the numbers shewn in Column I., and deducting the results from each corresponding index-number, so as to allow for relative loss of time, the figures in Column III. are obtained. These figures are then re-computed with the year 1911 as base, and are shewn in Column IV. In Column V. the cost of living index-numbers are shewn, and in Columns VI. and VII. the effective wage index-numbers are given, firstly, for full work, and, secondly, allowing for lost time. These are obtained by dividing the figures in Columns I. and IV., respectively, by the corresponding figures in Column V.

A comparison between the figures in Columns I. and VI. (see graphs A and C below) shews the relation between the absolute rates *of wages* and the purchasing efficiency of these rates. It is proper here to remark that any rise in wages necessarily tends to reduce the purchasing power of money, and therefore the increase shewn in the graph D (cost of living)—and consequently, also the trend of graphs B and C—is to some extent dependent upon the increase shewn in graph A. An analysis of this question must, however, be left for appropriate investigation at some future time. The figures in Column VII. (see graph B below) shew variations in *effective* wages after allowing not only for increased cost of living, but also for the relative extent of unemployment.

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* This expression must not be confused with " standard of living." A change in the standard of living necessarily involves a change in regimen (see Report No. 1), that is, a change in the nature or, in the relative quantity of commodities purchased, or both. A change in the " standard of comfort " merely implies a variation in effective wages, which variation may, or may not, result in, or be accompanied by, a change in " standard of living."

Unemployment, Cost of Living and Nominal and Effective Wage Index-Numbers, 1891 to 1912.

Year.	I. Nominal Wages Index-Numbers.	II. Percentage Unemployed.	Rate of Wages Index-Numbers, allowing for Lost Time.		V. Cost Living Index-Numbers.	Effective Wages Index-Numbers.	
			III. Actual.	IV. Recomputed. (1911 = 1,000).		VI. Full Work	VII. Allowing for Lost Time.
1891	848	9.29	770	808	973*	872	830
1896	816	10.81	728	764	823*	991	928
1901	848	6.59	793	832	880	964	945
1906	866	6.67	808	848	902	960	940
1907	893	5.74	842	884	897	996	986
1908	900	5.98	846	888	951	946	934
1909	923	5.79	870	913	948	974	963
1910	955	5.63	901	945	970	985	974
1911	1,000	4.67	953	1,000	1,000	1,000	1,000
1912	1,051	5.55	993	1,042	1,101	955	946

* Based on Sydney Prices only ; exclusive of House Rent.

The above figures are shewn in the diagram on page 67. It may be seen that the nominal wage index-number has steadily increased (except in 1896), and that the increase has generally been at a somewhat greater rate (except in the year 1912) than the increase in the cost of living. The effective wage index-numbers (both "Full Work" and "Allowing for Lost Time") do not, on the other hand, shew any general increase in more recent years, but fluctuate between a range which reached its minimum in 1908, and its maximum in 1911. The figures prior to the year 1906 are available only at quinquennial periods, and it may be observed that the *effective* wages in 1891 were relatively very low owing to the large percentage of unemployment and the high cost of living. In 1896, though the percentage unemployed increased, the cost of living decreased to a greater extent, with the result that effective wages in that year were higher than in 1891. By 1901 the percentage unemployed had decreased considerably, with a consequent increase in effective wages. In 1907 there was again a large decrease in unemployment, causing the "peak" in the effective wage index-number for that year. The rise in the cost of living in 1908, which was a drought year, caused a considerable fall in effective wages. From that year, however, until the year 1911, the effective wage index-number steadily increased from 934 to 1000, but this increase was more than counterbalanced by the fall in 1912, which was due to the large increase in cost of living and the smaller increase in unemployment.

3. **Relative Standard of Comfort and Effective Wage Index Numbers in Each State, 1912,**—The figures given in the preceding paragraph furnish an indication of the progress of effective wages in the whole Commonwealth since 1891, and an analogous examination of the relative "standard of comfort" as between the several States may now be made. This is shewn in the table on page 68, in the first line of which are given the wages index-numbers. These are subject to the qualifications referred to on p. l hereinbefore. The second line shews the "cost of living" index-numbers, the third line the per-

Unemployment, Cost of Living and Nominal and Effective Wage Index-Numbers, 1891 to 1912.

A - Nominal Wage Index-Numbers.
B Effective Wage Index-Numbers. (Allowing for Lost Time).
C Effective Wage Index-Numbers. (Full Time).
D Cost of Living Index-Numbers.
E - Percentage Unemployed.
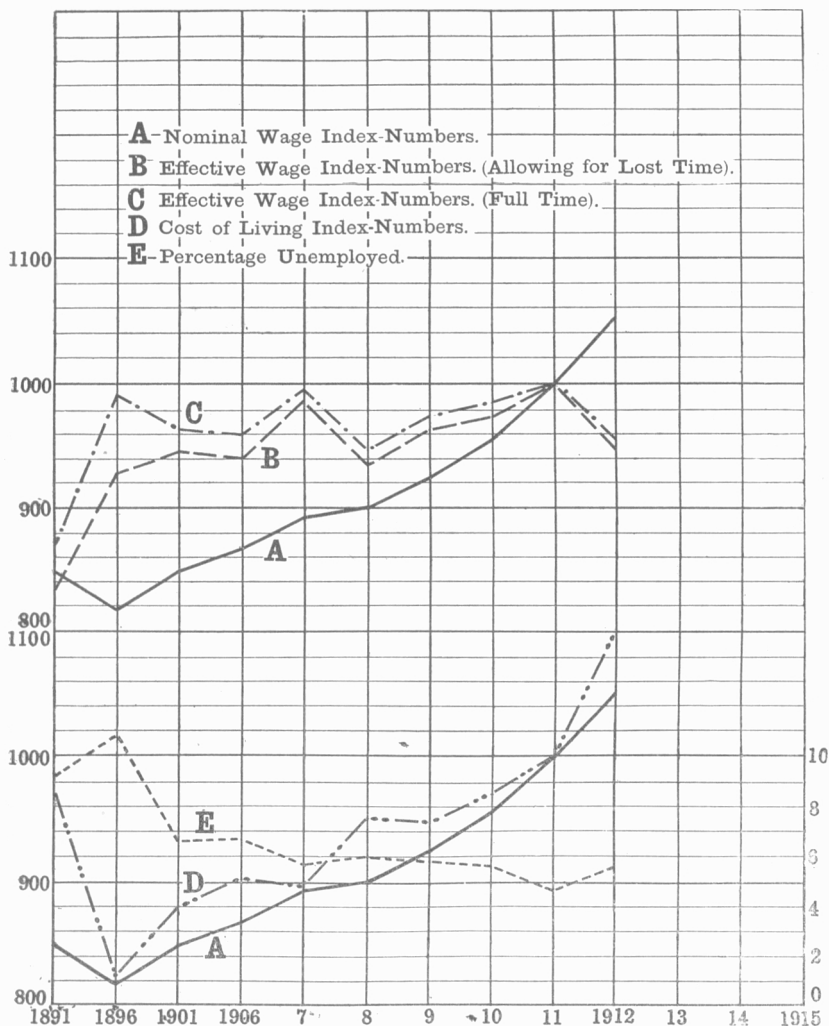
EXPLANATORY NOTE.—From 1891 to 1906 figures are available at quinquennial periods only ; each space in the horizontal scale up to the year 1906 represents, therefore, a period of five years. After that year each such space represents a single year. The two vertical scales on the left—each from 800 to 1100—represent the scales for the index-numbers shewn in graphs A, B, and C, and A and D respectively, while the scale at the right of the diagram—from 0 to 10—represents the percentage unemployed shewn in graph E.

centage unemployed, and the last two lines the "effective wage" index-numbers, firstly, on the assumption of full work, and, secondly, allowing for lost time. The figures in these two lines are computed in the same manner as the similar results were obtained in the table in the preceding paragraph.

Relative Standard of Comfort, Effective Wage Index-Numbers in each State, 1912.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	C'wth.
Nominal Wage Index-Numbers	998	982	984	998	1,158	876	**1,000**
Cost of Living Index-Numbers	1,056	949	900	1,033	1,094	929	**1,000**
Percentage Un-employed ..	4.95	6.71	4.62	5.07	5.82	3.37	**5.55**
Effect. Wage } (a)	945	1,035	1,093	966	1,058	943	**1,000**
Index Nos. } (b)	952	1,022	1,105	951	1,057	966	**1,000**

(a) Full work.   (b) Allowing for lost time.

The figures given in the above table in regard to nominal wage index-numbers and percentage unemployed, are subject to the qualifications expressed on pages 41 and 21 respectively. The results shew that effective wages in 1912, allowing for lost time, were highest in Queensland, followed in the order named by Western Australia, Victoria, and Tasmania, with New South Wales and South Australia (practically equal) coming last.

4. Relative Productive Activity and Effective Wages, 1871 to 1911. —The preceding tables refer to the matter of variations in nominal wages in regard to fluctuations in cost of living and extent of unemployment. Another important matter in any investigation into increases in rates of wages is the question of increase in relative output or production per head of population.

Figures are published annually shewing the estimated *value* of production from industries in the Commonwealth, but these figures do not reveal whether there has been any increase in the *quantity* of productive activity, since the price-level from year to year is itself a factor in the determination of the values. Before, therefore, any estimate of the increase or decrease in the relative productive activity, that is, in the relative quantity of output or production per head of population, can be formed, the price element must be eliminated. This is done in the following table in which Column I. shews the estimated *value* of production (a) total, and (b) per head of mean population. In Column II. the estimated value of production per head of population is shewn in the form of index-numbers with the year 1911 as base, that is to say, the production per head in 1911 is made equal to 1000, and the values for the other years computed accordingly. In Column III. Melbourne wholesale price index-numbers are given; it is assumed that these index-numbers reflect, with substantial accuracy, variations in wholesale prices in the Commonwealth as a whole. The figures in Column IV. are obtained by dividing the figures for each year in Column II. by the corresponding figures in Column III. They shew the estimated relative productive activity per head of population, taking the year 1911 as the basic or standard year, the fluctuations due to variations in prices having been eliminated. In Column V. the effective wage index-numbers shewn in the graph on page 67, (a) for full work, and (b) allowing for lost time, are included for comparative purposes.

Estimated Relative Productive Activity in Commonwealth, 1891 to 1911.

Year.	I. Estimated Value of Production.		II. Estimated value of Production per Head Index-Number (1911 = 1,000).	III. Wholesale Price-Index-Number (1911 = 1,000).	IV. Estimated Relative Productive Activity Index-Number (1911 = 1,000).	V. Effective Wages Index-Numbers (1911 = 1,000).	
	(a) Total.	(b) Per Head of Population.				(a) Full Time.	(b) Allowing for Lost Time.
	£000	£					
1871	46,700	27.89	661	1,233	536	..	..
1881	71,116	31.34	746	1,124	664	..	..
1891	96,087	30.06	715	945	757	872	83₁
1901	114,585	30.23	719	974	738	964	945
1906	147,043	36.21	862	948	909	960	940
1907	167,446	40.61	966	1,021	946	996	986
1908	164,957	39.33	936	1,115	839	946	934
1909	174,503	40.82	971	993	978	974	963
1910	187,734	43.92	1,045	1,003	1,042	985	974
1911	188,745	42.03	1,000	1,000	1,000	1,000	1,000
1912	*	*	*	1,170	*	955	946

* Not Available.

These figures shew that the estimated relative productivity per head of population increased by no less than 86 per cent. from 1871 to 1911, and by nearly 33 per cent. from 1891 to 1911. Reference to the subjoined graph will shew that the increase was not uniform during the whole of the years specified, slight decreases occurring in 1901 and 1911, and a heavy fall in 1908, which was a year of severe drought. It may also be seen that the increase in productive activity per head has relatively been far greater than the increase in nominal wages and still greater than the increase in effective wages.

The index-numbers given in the above table are, of course, reversible. That is to say, if it be desired to take any year, other than the year 1911, as base, the necessary index-numbers can be obtained by dividing throughout by the index-number for the year which is to be taken as base, and multiplying the results by 1000. For example, if it be desired to compare the years 1906 to 1911, inclusive, with the year 1901 as base, the relative productive activity index-numbers must be multiplied throughout by $1000/_{738}$, and the effective wage index-numbers (allowing for unemployment) by $1000/_{945}$. The results are shewn in the following table, in which cost of living index-numbers (weighted average for six capital towns) are also included.

Relative Production Activity, Effective Wages and Cost of Living in Australia, 1901 to 1912.

Particulars.	1901.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
Relative Productive Activity	1,000	1,232	1,282	1,137	1,325	1,412	1,355	†
Nominal Rates of Wages	1,000	1,021	1,053	1,061	1,088	1,126	1,179	1,240
Effective Wages*	1,000	995	1,043	988	1,019	1,031	1,058	1,001
Cost of Living	1,000	1,025	1,019	1,081	1,075	1,107	1,136	1,251

* Allowing for lost time through unemployment.   † Not available.

While it may be dangerous, in view of the fluctuating nature of some of the figures, to compare individual years without due reference

Relative Productive Activity and Nominal and Effective Wages in Commonwealth, 1871 to 1911.

A Relative Productive Activity per Head.
B Effective Wage Index-Numbers. (Allowing for Lost Time).
C Nominal Wage Index-Numbers.
D Total Value of Production.
E Value of Production per Head.
F Wholesale Price Index-Numbers.
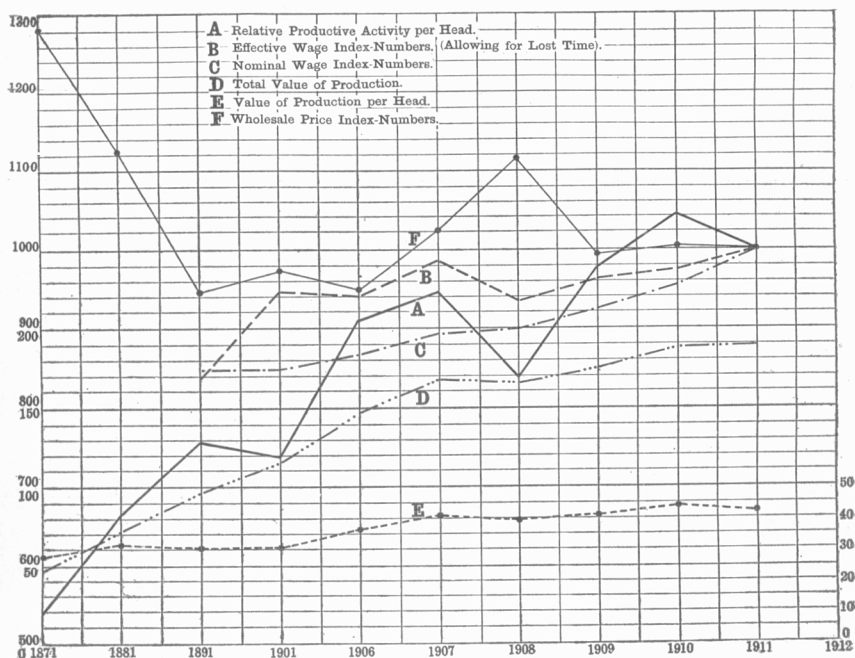
EXPLANATORY NOTE.—From 1871 to 1901 figures are available only at decennial periods; every double space on the horizontal scale up to 1901 represents, therefore, a period of 10 years. The double space from 1901 to 1906 represents a period of five years, while from that year onward each double space represents a single year. The upper figures on the left—from 500 to 1300—represent the scale for the index-numbers shewn in graphs A, B, C and F; the lower figures on the left from 0 to 200—represent in millions of £ sterling (£000,000) the scale for graph D, shewing the total value of production; while the figures on the right—from 0 to 50—represent in £ sterling the scale for the value of production per head of population shewn in graph E.

to other years, it may be seen that from 1901 to 1911 the relative productive activity increased from 1000 to 1355, or 35½ per cent., while nominal wages increased nearly 18 per cent. (or about one-half the increase in productive activity), effective wages increased 5.8 per cent., and cost of living 13.6 per cent. It should be remembered, however, that in the following year there was a heavy decline (see p. 66) in the effective wage index-number

APPENDIX I.

SPECIMEN FORM (REDUCED) FOR COLLECTION OF RETURNS AS TO PAST YEARS FROM TRADE UNIONS.

State _____   Office No _____
          Class No _____

Commonwealth Bureau of Census and Statistics
(LABOUR AND INDUSTRIAL BRANCH),

MELBOURNE.

Trade Union Statistics.

(The information referred to hereon is required under the authority of the Census and Statistics Act 1905.)

WAGES, HOURS OF LABOUR, AND UNEMPLOYMENT.

Individual Returns are regarded as Strictly Confidential, and are not published separately.

Full name of Trade Union or Association _____

Town, District, or locality covered by same _____

1. Please state on the next page the following particulars:—

   (a) The Union rates of wages for each of the more important occupations or trades followed by members of your association at the end of each year specified as far back as 1891 since the date of formation of your Union; also state the rates of wages now in effect. If working by the piece, kindly enclose Union schedule of piece rates.

   (b) The ordinary hours of labour per week for each year specified.

   (c) The total number of Members of your Union, and also, if available, the number unemployed at the end of each year specified (not during the year). If exact figures not available please specify approximate number of members and number unemployed.

(OVER)

C.7776.

Union Rates of Wages per _____
(State whether per hour, day, or week.)

End of Year	Principal branches of trade or occupation followed by members of your Union.										Hours of Labour per Week.	Number of Members at End of Year	
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.		Total Number.	Number Unemployed.
1891													
1896													
1901													
1906													
1907													
1908													
1909													
1910													
1911													
Present time													

2. When did the present rates of wages come into effect? _____

3. When did the present schedule of hours of labour come into effect? _____

4. Did the present rates or schedule come into effect after strike or without strike? _____

---

5. Are the present rates of wages or schedule of hours contained (a) in any determination of a Wages Board; (b) in any award of an Arbitration Court; or (c) in any industrial agreement? If so, please give particulars as to date, &c., of the determination, award, or agreement, and furnish copy of same, if available.

_____

Signature of Secretary or other Union official supplying the above information _____

Official Position _____

Address _____

Date _____ 191_

APPENDIX II.

Current Retail Prices in Metropolitan and Country Towns, 1912.

TOWN.	Bread 2 lbs.	Flour 25 lbs.	Tea per lb.	Coffee per lb.	Sugar per lb.	Rice per lb.	Sago per lb.	Jam per lb.	Oat-meal per lb.	Rais-ins per lb.	Cur-rants per lb.	Starch per lb.
	d.	s. d.	s. d.	s. d.	d.	d.	d.	d.	d.	d.	d.	d.
Sydney ..	3.4	2 10.9	1 4.1	1 6.3	2.8	2.8	2.9	4.5	3.0	6.3	7.3	5.6
Newcastle	3.0	2 11.3	1 5.4	1 5.7	2.9	3.2	3.1	4.5	2.9	7.1	7.5	5.6
Broken Hill	3.5	3 0.4	1 6.2	1 7.9	3.3	4.0	4.1	4.5	3.5	7.1	7.4	6.9
Goulburn ..	3.3	2 10.2	1 6.0	1 6.6	3.0	3.1	3.8	4.6	3.1	7.7	7.7	6.0
Bathurst ..	3.5	2 6.9	1 5.8	1 6.1	3.0	3.0	3.4	4.9	3.0	7.2	7.2	6.1
Melbourne	3.0	2 7.1	1 2.7	1 6.6	2.9	2.8	2.9	4.0	2.8	6.3	7.1	5.3
Ballarat ..	3.1	2 7.1	1 3.0	1 5.7	3.0	2.9	2.9	3.6	2.7	5.8	6.8	5.5
Bendigo ..	3.3	2 6.5	1 2.3	1 6.1	3.2	2.9	3.0	3.5	2.9	5.8	7.0	5.3
Geelong ..	3.3	2 9.8	1 2.7	1 5.3	3.0	2.6	3.0	3.8	2.9	6.2	7.5	5.2
Warrnambool	3.3	2 8.5	1 3.2	1 6.1	2.9	2.8	3.0	3.9	2.9	6.3	7.0	5.7
Brisbane ..	3.5	3 2.1	1 4.4	1 7.1	3.0	2.6	2.8	3.9	2.8	6.4	7.2	5.5
Toowoomba	3.5	3 4.4	1 6.0	1 5.9	3.1	3.0	3.2	4.9	3.0	7.2	7.7	6.0
Rockhampt'n	3.8	3 0.7	1 6.0	1 6.7	2.8	2.8	3.0	4.5	2.9	6.2	7.0	6.0
Charters Towers	4.5	3 6.9	1 7.6	1 7.9	3.5	3.7	4.0	4.9	3.4	6.8	7.7	6.1
Warwick ..	3.8	3 4.4	1 6.0	1 6.0	3.1	3.0	3.4	4.9	3.1	8.2	7.6	6.0
Adelaide ..	3.5	2 9.6	1 4.5	1 6.2	2.9	3.3	3.2	3.4	2.9	6.2	6.8	5.5
Kadina Moonta & Wallaroo	3.3	2 6.1	1 3.4	1 6.2	2.9	3.0	3.1	3.5	2.9	6.6	6.7	5.9
Port Pirie	3.0	2 9.6	1 6.0	1 8.0	3.3	3.4	3.7	3.9	3.0	7.1	7.5	6.1
Mt. Gambier	3.0	3 0.0	1 4.2	1 7.9	3.0	3.0	3.2	4.0	3.0	6.6	7.0	5.8
Petersburg	3.5	2 11.2	1 5.6	1 7.6	3.2	3.5	3.0	4.2	3.0	7.4	6.9	6.2
Perth and Fremantle	3.5	2 8.4	1 3.8	1 7.3	3.0	2.9	3.0	4.1	2.9	6.5	7.0	5.9
Kalgoorlie & Boulder	5.0	3 3.0	1 7.3	1 9.2	3.9	3.9	4.0	5.3	3.4	9.3	8.1	7.0
Mid. Junction & Guildford	3.5	2 9.4	1 3.8	1 6.0	3.0	3.0	3.0	4.1	3.0	6.0	7.4	6.0
Bunbury ..	3.5	2 10.4	1 3.8	1 6.0	3.2	3.0	3.1	4.2	2.9	6.7	7.3	6.1
Geraldton	4.0	2 11.1	1 5.3	1 3.4	3.3	3.0	4.0	4.3	3.0	7.8	7.9	6.0
Hobart ..	3.5	3 0.9	1 3.4	1 6.0	3.0	3.0	3.2	4.3	2.8	6.4	7.7	6.0
Launceston	3.3	2 7.5	1 2.5	1 5.1	2.7	2.9	2.8	3.9	2.6	6.2	7.1	5.4
Zeehan ..	3.8	2 11.2	1 4.2	1 6.1	3.0	3.0	3.3	4.1	3.2	6.6	7.1	5.6
Beaconsfield	3.3	2 10.4	1 3.3	1 5.9	3.0	3.0	3.5	4.3	2.8	7.6	7.1	5.9
Queenstown	3.8	3 0.3	1 5.6	1 4.5	2.9	3.0	3.2	4.0	2.7	7.4	7.8	5.8
Darwin, N.T.	6.0	4 0.0	1 5.5	1 7.0	3.5	3.5	4.5	5.0	5.0	10.5	9.5	6.5
Weighted Average*	3.3	2 9.8	1 3.8	1 6.5	2.9	2.9	3.0	4.1	2.9	6.4	7.2	5.6

* Weighted average for all towns exclusive of Darwin.

Current Retail Prices in Metropolitan and Country Towns, 1912—contd.

TOWN.	Mutt'n sh'lder per lb.	Mutt'n Loin per lb.	Mutt'n Neck per lb.	Chops Loin per lb.	Chops Leg per lb.	Chops Neck per lb.	Pork Leg per lb.	Pork Loin per lb.	Pork Belly per lb.	Pork Chops per lb.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Sydney ..	3.5	4.7	3.7	5.6	4.9	4.2	8.0	8.5	7.7	8.9
Newcastle	4.2	4.9	4.1	5.0	5.2	4.4	6.8	7.8	6.4	7.9
Broken Hill	5.2	5.6	4.6	6.5	6.5	5.9	9.3	9.3	8.4	10.2
Goulburn ..	4.0	4.7	3.3	4.7	4.7	3.4	6.1	6.2	6.0	6.3
Bathurst ..	3.8	4.2	3.0	4.3	4.4	3.8	5.8	6.1	6.0	6.3
Melbourne	3.4	4.4	3.1	5.3	4.9	3.6	6.7	7.4	7.3	7.7
Ballarat ..	4.2	5.2	3.8	5.8	6.1	4.6	7.5	8.3	8.5	8.5
Bendigo ..	3.8	4.9	3.4	5.5	5.4	4.3	6.7	6.9	6.9	7.2
Geelong ..	3.7	4.6	3.7	4.9	4.9	3.9	6.8	7.4	7.3	7.6
Warrnambool	4.3	5.2	3.9	5.3	5.2	4.3	6.3	6.5	6.4	6.7
Brisbane ..	3.1	4.8	4.3	5.1	5.1	5.1	7.0	7.3	6.0	7.9
Toowoomba	2.9	4.5	3·7	4.9	4.9	4.9	6.1	6.1	5.9	6.3
Rockhampt'n	3.9	5.3	4.1	5.4	5.3	5.2	7.3	7.3	6.4	7.4
Charters Towers	4.0	5.7	3.9	6.0	6.0	5.3	8.0	8.0	6.9	8.0
Warwick ..	4.1	5.0	4.7	5.0	5.0	5.0	7.0	7.0	7.0	7.0
Adelaide ..	3.6	4.6	3.6	5.1	5.3	4.4	7.3	8.1	8.0	8.2
Kadina Moonta & Wallaroo	3.6	4.3	3.4	4.8	5.5	4.4	6.7	6.7	6.3	7.0
Port Pirie	4.1	4.5	4.1	5.7	5.9	5.3	6.3	6.1	6.1	6.5
Mt. Gambier	4.0	4.7	3.5	5.0	5.0	4.5	6.4	6.5	6.5	6.5
Petersburg	4.2	4.8	3.8	5.6	5.9	4.8	6.0	6.0	5.9	6.0
Perth and Fremantle	6.6	7.3	5.8	7.9	8.1	6.5	9.0	9.0	8.1	9.6
Kalgoorlie & Boulder	7.1	8.3	6.8	8.5	8.8	8.2	10.7	10.5	9.3	11.6
Mid. Junction & Guildford	7.3	7.6	5.9	8.2	8.2	7.0	8.8	8.8	8.1	8.9
Bunbury ..	7.9	8.6	7.1	8.9	8.9	7.8	9.0	9.0	8.9	9.4
Geraldton	6.7	7.1	6.1	7.7	7.7	7.2	8.0	8.0	6.9	8.0
Hobart ..	4.7	5.4	4.4	6.3	6.2	5.1	6.5	6.9	6.8	7.3
Launceston	5.0	5.3	4.2	6.2	6.0	5.1	6.3	6.5	6.5	6.8
Zeehan ..	6.2	7.0	6.0	7.2	7.2	6.3	7.6	7.6	7.3	7.8
Beaconsfield	5.3	5.5	4.4	6.4	6.3	6.2	6.4	6.4	6.4	6.6
Queenstown	6.6	6.5	5.7	7.2	7.3	6.4	7.3	7.3	7.3	7.3
Darwin, N.T.	7.0	9.0	7.0	9.0	9.0	7.0	6.0	6.0	6.0	6.0
Weighted Average*	3.8	4.9	3.8	5.6	5.3	4.4	7.4	7.9	7.4	8.2

* Weighted average for all towns exclusive of Darwin.

Current Retail Prices in Metropolitan and Country Towns, 1912—contd.

Town.	Ham		Beef Fresh Sirloin	Beef Fresh Rib	Beef Fresh Flank	Beef Fresh Shin	Steak Rump		Steak sh'lder	Steak Buttock	Beef Co'n'd round	Beef Co'n'd brisket with bone	Beef Co'n'd brisket without bone	Mutt'n Leg
	per lb.		per lb.	per lb.	per lb.	per lb.	per lb.		per lb.	per lb.	per lb.	per lb.	per lb.	per lb.
	s.	d.	d.	d.	d.	d.	s.	d.	d.	d.	d.	d.	d.	d.
Sydney ..	1	0.3	6.2	4.9	4.2	3.6		8.4	4.3	4.3	4.6	3.1	4.0	4.1
Newcastle	1	0.5	5.7	5.0	4.1	3.9		7.4	4.4	4.5	4.8	3.7	5.0	5.0
Broken Hill	1	1.3	6.7	5.7	4.0	5.4		10.0	6.4	6.7	6.7	4.3	5.7	6.2
Goulburn ..		11.9	5.7	4.7	4.2	3.9		6.6	4.6	4.6	5.7	4.2	5.2	4.7
Bathurst ..	1	1.0	4.6	4.1	3.3	3.5		6.1	4.0	4.2	4.3	3.5	4.1	4.3
Melbourne	1	0.6	6.4	5.1	4.3	3.8		8.9	4.6	5.2	5.3	3.2	4.3	4.3
Ballarat ..	1	0.6	7.4	6.4	5.1	4.7		10.1	5.9	6.2	7.2	4.5	6.1	5.1
Bendigo ..		11.6	5.9	5.4	3.9	4.2		8.1	5.2	5.4	5.4	3.6	4.9	5.0
Geelong ..	1	0.3	6.0	5.5	4.4	3.9		7.9	4.5	5.4	5.6	3.4	4.5	4.5
Warrnambool		11.7	5.8	4.9	3.5	4.3		7.1	4.2	4.9	5.1	3.4	4.1	5.2
Brisbane ..	1	2.3	4.4	3.3	3.4	2.9		6.3	3.7	3.7	4.4	2.8	3.9	4.6
Toowoomba	1	2.4	4.9	3.2	2.2	2.5		5.7	2.9	2.9	4.4	2.5	4.0	4.5
Rockhampt'n	1	2.9	5.7	4.9	3.4	2.8		5.9	4.0	3.7	5.0	3.9	4.7	5.3
Charters Towers	1	3.9	5.0	3.5	3.5	4.0		6.0	4.0	4.0	4.5	3.5	4.5	5.5
Warwick ..	1	2.5	5.0	4.0	4.0	4.0		5.0	4.0	4.0	5.0	4.0	4.4	5.0
Adelaide ..	1	0.3	5.8	4.8	4.2	3.8		8.1	4.5	4.9	5.8	3.6	4.6	4.4
Kadina Moonta & Wallaroo	1	0.1	5.6	5.4	4.0	4.6		7.0	5.4	5.4	5.6	4.2	5.0	4.7
Port Pirie	1	1.2	5.9	4.9	3.1	4.4		7.8	5.4	5.5	6.0	4.0	4.9	4.9
Mt. Gambier	1	0.3	5 3	4.7	3.7	4.0		5.9	4.0	4.0	5.3	4.0	5.0	4.1
Petersburg	1	1.2	5.4	5.0	4.9	4.8		7.4	5.1	5.2	5.6	4.0	4.9	5.0
Perth and Fremantle	1	1.9	7.5	6.5	6.0	5.7		11.7	7.0	7.0	7.0	4.5	5.9	7.7
Kalgoorlie & Boulder	1	4.6	8.7	7.6	6.7	8.4		11.8	8.4	8.4	8.5	6.2	7.8	8.7
Mid. Junction & Guildford	1	1.7	8.2	7.4	4.9	6.9	1	0.4	8.0	7.8	7.7	5.3	6.7	8.2
Bunbury ..	1	1.4	8.9	7.9	5.7	7.1	1	0.0	8.0	8.0	8.1	6.1	7.2	8.9
Geraldton	1	2.7	7.7	6.7	5.2	6.5		9.3	7.2	7.4	7.2	5.9	6.6	7.7
Hobart ..	1	1.2	6.8	5.8	4.2	4.8		8.6	5.5	6.3	6.1	3.8	5.1	5.6
Launceston	1	0.2	6.4	5.7	4.0	5.0		7.2	5.4	5.9	5.9	3.9	5.3	5.4
Zeehan ..		11.7	7.0	6.7	5.6	6.0		8.2	6.6	6.9	6.9	5.8	6.6	7.2
Beaconsfield	1	0.4	6.4	5.9	4.6	5.6		6.9	6.4	6.3	5.6	4.5	5.5	5.5
Queenstown	1	0.1	7.3	6.6	4.7	5.8		8.4	6.6	7.2	7.0	4.9	5.8	7.0
Darwin, N.T.	1	7.0	.0	5.0	5.0	..		5.0	5.0	5.0	5.0	..	5.0	9.0
Weighted Average*	1	0.8	6.2	5.1	4.3	4.0		8.5	4.7	5.0	5.3	3.4	4.5	4.7

* Weighted average for all towns exclusive of Darwin.

Current Retail Prices in Metropolitan and Country Towns, 1912—contd.

Town.	Blue. dz. sq.	Candle per lb.	Soap per lb.	Potatoes. 14 lbs.	Onions per lb.	Kerosene gallon	Milk quart	Butter per lb.	Cheese per lb.	Eggs per dz	Bacon Middle per lb.	Bacon Shoulder per lb.
	s. d.	d.	d.	s. d.	d.	s. d.	d.	s. d.	d.	s. d.	s. d.	d.
Sydney ..	8.8	6.6	3.0	1 8.6	2.2	1 0.8	5.0	1 3.2	11.7	1 6.9	11.2	7.2
Newcastle	10.0	7.0	3.6	1 9.3	2.6	1 2.2	4.5	1 3.3	11.7	1 7.0	11.5	9.9
Broken Hill	1 0.3	8.5	3.2	2 0.2	3.0	1 9.6	6.1	1 7.5	1 0.4	1 5.3	1 0.0	9.8
Goulburn ..	11.2	6.5	3.2	1 7.1	2.7	1 3.2	4.9	1 3.4	11.8	1 4.9	11.0	8.1
Bathurst ..	11.3	7.3	2.9	1 5.2	2.4	1 5.2	4.3	1 3.3	11.8	1 4.8	11.8	9.3
Melbourne	6.5	6.3	3.6	1 4.1	2.0	1 0.3	4.6	1 3.7	11.4	1 5.4	1 0.2	7.2
Ballarat ..	6.3	5.9	2.9	1 2.7	2.0	1 1.6	3.9	1 2.6	11.3	1 2.2	1 0.0	7.5
Bendigo ..	6.4	6.5	3.1	1 5.2	2.1	1 2.5	4.8	1 3 0	11.4	1 2.9	10.6	6.6
Geelong ..	6.3	6.0	3.0	1 3.5	2.0	1 2.8	4.6	1 2.9	10.9	1 3.4	11.8	7.5
Warrnambool	7.1	6.2	2.9	1 2.9	1.8	1 1.5	3.8	1 3.6	10.6	1 2.2	10.9	7.2
Brisbane ..	8.4	6.5	2.4	1 11.4	2.1	1 0.7	4.8	1 3.6	11.1	1 5.6	10.6	7.3
Toowoomba	9.9	7.2	3.0	1 11.9	2.5	1 5.0	4.0	1 3.1	10.9	1 3.9	10.0	7.5
Rockhampt'n	9.4	6.9	2.5	1 11.2	2.3	1 1.5	4.8	1 2.0	11.7	1 5.6	9.5	7.8
Charters Towers	10.5	7.8	2.8	2 5.7	3.0	1 6.1	4.9	1 5.0	1 0.4	1 8.0	11.7	8.9
Warwick ..	11.6	7.3	2.9	1 9.9	2.7	1 5.9	4.0	1 3.2	10.6	1 3.1	10.2	8.7
Adelaide ..	9.2	7.2	2.6	1 6.5	2.3	1 2.1	6.0	1 4.8	11.5	1 2.9	11.5	7.0
Kadina Moonta & Wallaroo	9.6	7.3	3.1	1 7.7	2.7	1 3.1	6.0	1 4.2	11.7	1 0·9	11.3	9.9
Port Pirie	11.7	8.6	2.5	1 8.7	2.6	1 4.1	5.8	1 4.6	1 0.6	1 1.8	1 0.2	9.7
Mt. Gambier	11.0	7.8	3.0	1 4.0	2.4	1 4.0	3.6	1 1.6	10.1	11.5	11.3	8.6
Petersburg	11.6	7.9	3.6	1 8.0	3.0	1 5.1	4.3	1 3.5	11.7	1 1.5	11.7	10.1
Perth and Fremantle	10.9	7.4	2.9	1 9.8	2.4	1 0.5	6.9	1 4.4	11.8	1 8.4	1 0.7	8.2
Kalgoorlie & Boulder	1 0.0	9.5	4.1	2 4.7	3.4	1 9.4	9.0	1 7.0	1 1.5	2 0.7	1 2.0	9.8
Mid. Junction & Guildford	10.7	8.2	3.2	2 0.4	2.7	1 0.6	6.0	1 5.1	1 0.0	1 8.2	1 0.6	9.0
Bunbury ..	11.2	8.4	2.7	1 10.7	3.0	1 1.2	5.5	1 5.5	1 0.2	1 7.1	1 0.5	8.5
Geraldton	1 0 0	8.8	2.7	2 1.3	2.6	1 2.2	6.0	1 6.6	1 1.0	1 9.3	1 1.5	9.9
Hobart ..	8.8	5.9	3.1	1 7.2	2.6	1 2 6	5.0	1 3.8	11.7	1 4.4	11.1	7.1
Launceston	7.3	5.7	2.8	1 7.2	2.4	1 3.5	4.5	1 2.8	10.6	1 3.0	10.4	8.0
Zeehan ..	9.3	6.8	3.1	1 10.4	2.5	1 3.2	5.6	1 4.3	11.6	1 6.0	10.5	8.1
Beaconsfield	9.4	7.3	4.3	1 9.4	2.8	1 3.5	4.6	1 3.9	11.2	1 3.9	10.2	8.7
Queenstown	8.6	7.7	3.3	1 8.3	2.2	1 5 1	5.5	1 3.9	10.8	1 6.1	10.4	8.6
Darwin, N.T.	10.5	9.0	3.3	3 0.0	2.5	1 9.5	..	1 6.0	1 1.0	1 9.0	1 1.0	1 1.0
Weighted Average*	8.3	6.7	3.1	1 7.4	2.2	1 1.4	5.1	1 3.6	11.6	1 5.7	11.6	7.5

* Weighted average of all towns exclusive for Darwin.

APPENDIX III.

Current Weekly House Rents† in Metropolitan and Country Towns, 1912.

TOWN.	AVERAGE PREDOMINANT WEEKLY RENTS FOR HOUSES HAVING—												
	Under 4 Rooms.		4 Rooms.		5 Rooms.		6 Rooms.		7 Rooms.		Over 7 Rooms.		Weighted Average for all Houses.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Sydney	11	7	15	2	18	0	21	9	26	2	31	11	19	7
Newcastle ..	5	8	7	9	11	2	14	0	17	6	23	10	10	11
Broken Hill ..	6	10	9	11	12	6	14	10	18	2	23	7	10	9
Goulburn ..	5	10	7	4	12	7	15	9	22	2	29	10	14	4
Bathurst ..	5	7	7	7	9	6	12	3	16	4	21	11	10	8
Melbourne ..	8	11	11	8	14	7	18	2	21	6	25	8	15	10
Ballarat ..	4	6	5	8	8	0	10	7	13	1	19	6	9	11
Bendigo ..	4	10	7	0	9	2	11	10	14	11	22	5	10	3
Geelong ..	4	11	8	7	11	6	15	3	20	7	24	3	13	7
Warrnambool ..	5	4	8	7	10	11	13	3	15	10	20	6	11	10
Brisbane ..	6	1	8	1	10	4	13	9	16	10	22	10	12	7
Toowoomba ..	4	11	7	5	10	5	12	3	14	5	21	11	12	6
Rockhampton ..	5	8	7	6	9	1	12	0	14	0	16	7	11	0
Charters Towers	4	10	7	2	10	0	11	9	15	8	20	9	9	5
Warwick ..	6	1	8	8	10	9	13	1	16	7	18	10	12	6
Adelaide ..	9	7	14	0	18	6	22	1	25	8	29	5	18	1
Moonta &c. ..	5	4	6	3	8	6	11	3	14	2	14	6	9	0
Port Pirie ..	8	0	10	1	11	9	13	6	16	2	19	2	11	5
Mt. Gambier ..	5	6	7	3	9	4	11	8	14	3	17	8	10	2
Petersburg ..	7	9	10	0	12	6	15	0	17	6	20	0	12	6
Perth ..	8	9	11	7	14	5	17	4	21	3	27	4	13	9
Kalgoorlie ..	9	7	13	7	16	9	20	1	23	7	31	0	13	2
Mid. Junction	6	6	9	1	12	10	16	0	19	0	24	5	11	10
Bunbury ..	8	5	10	5	12	4	15	4	18	7	21	1	10	6
Geraldton ..	11	5	16	2	20	3	22	6	25	8	35	8	16	1
Hobart ..	7	4	9	10	12	0	14	5	17	6	20	8	12	11
Launceston ..	6	7	9	2	11	11	14	8	16	10	21	0	12	9
Zeehan	4	6	6	10	10	2	12	6	14	2	17	6	7	0
Beaconsfield ..	3	0	4	3	4	9	5	8	6	8	7	8	4	6
Queenstown ..	6	7	8	6	10	5	13	8	16	4	20	0	8	8
Weighted Average	7	2	9	6	12	1	14	10	18	3	23	8	12	5

† The rents are shewn to the nearest penny.

APPENDIX IV.

Average Annual Wholesale Prices in Melbourne, 1912.

COMMODITY.	UNIT.	1912.	COMMODITY	UNIT.	1912.
		s. d.			s. d.
GROUP I. METALS—			GROUP V. GROCERIES, &c.—		
Iron—Pig—Mixed Nos.	ton	83 2	Currants	lb.	0 5¼
Rod and Bar	,,	215 7	Raisins	,,	0 6¾
Angle and Tee	,,	202 11	Herrings	doz. 1 lb. tins	4 6
Plate	,,	201 4	Salmon	,,	9 5¼
Hoop	,,	212 4	Sardines	doz. hlvs	5 2
Galvanised Corrugated	,,	359 5	Tea	lb.	0 8⅝
Wire, Fencing	,,	156 11	Coffee	,,	1 2¼
Zinc—Sheet	,,	733 1	Cocoa	,,	1 1¼
Lead—Sheet	,,	405 0	Sugar	ton	474 0
Piping	,,	448 4	Macaroni	lb.	0 3¼
Copper—Sheet	lb.	0 10¼	Sago	,,	0 2¼
Coal (on Wharf)	ton	22 6	Rice	ton	527 6
Tinned Plates	cwt.	17 1	Salt—Fine	,,	81 3
Quicksilver	lb.	2 8½	Rock	,,	52 11
			Mustard	doz. 1 lb. tins	19 0
GROUP II TEXTILES, LEATHER, &c			Starch	lb.	0 5
Jute Goods—Branbags	dozen	5 11¾	Blue	,,	0 8¼
Cornsacks	,,	5 10⅝	Matches	gross	2 1
Woolpacks	each	2 9	Candles	lb.	0 7½
Leather—Kip	lb.	1 7	Kerosene	gallon	0 10¼
Calf	,,	2 4½	Tobacco	lb.	4 10¼
Basils	dozen	20 0			
Cotton—Raw	lb.	0 6⅛	GROUP VI. MEAT—		
Wool	,,	0 9½	Beef	100 lb.	25 2¼
Twine, Reaper and Binder	,,	0 4⅝	Mutton	lb.	0 3¼
Tallow	ton	619 3	Lamb	each	9 11¾
			Veal	lb.	0 2⅝
GROUP III. AGRICULT'L PRODUCE			Pork	,,	0 4⅝
Wheat	bushel	4 1			
Flour	ton	178 4	GROUP VII. BUILDING MATERIAL		
Bran	bushel	1 2¼	Timber—Flooring—6 x 1½	100ft lin	11 3
Pollard	,,	1 3½	6 x ¾	,,	8 8
Oats	,,	3 2¼	6 x ¾	,,	7 9
Oatmeal	ton	414 7	6 x ½	,,	5 7½
Barley—Malting	bushel	5 11¼	Weatherboards	,,	6 4
Feed	,,	4 8	Oregon	1000ft sp	135 9
Maize	,,	4 1	Shelving	,,	335 0
Hay	ton	119 7	Cement	cask	14 6½
Straw	,,	36 10½	White Lead	ton	723 6
Peas	bushel	4 0¼	Slates	1000	252 4
Potatoes	ton	183 7½			
Malt	bushel	7 7¾			
Chaff	ton	97 3	GROUP VIII. CHEMICALS—		
Onions	,,	235 7½	Cream of Tartar	lb.	0 9½
			Carbonate of Soda	ton	165 5
GROUP IV. DAIRY PRODUCE—			Saltpetre	,,	660 0
Ham	lb.	1 0½	Sulphur	,,	195 9
Bacon	,,	0 9⅝	Caustic Soda	cwt.	12 3
Cheese	,,	0 11	Potassium Cyanide	lb.	0 8¼
Butter	,,	1 1½	Alum	ton	88 6
Lard	,,	0 7⅛			
Eggs	dozen	1 1½			
Honey	lb.	0 3⅜			
Beeswax	,,	1 4			
Condensed Milk	doz. tins	5 8¼			